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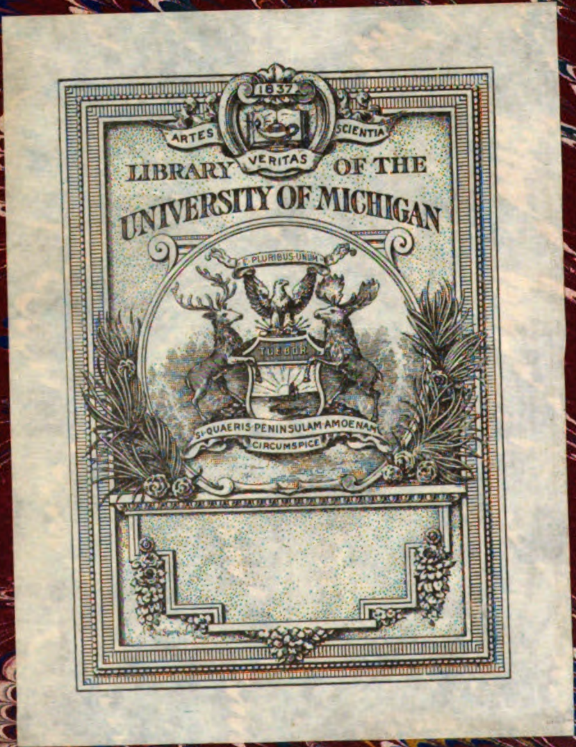
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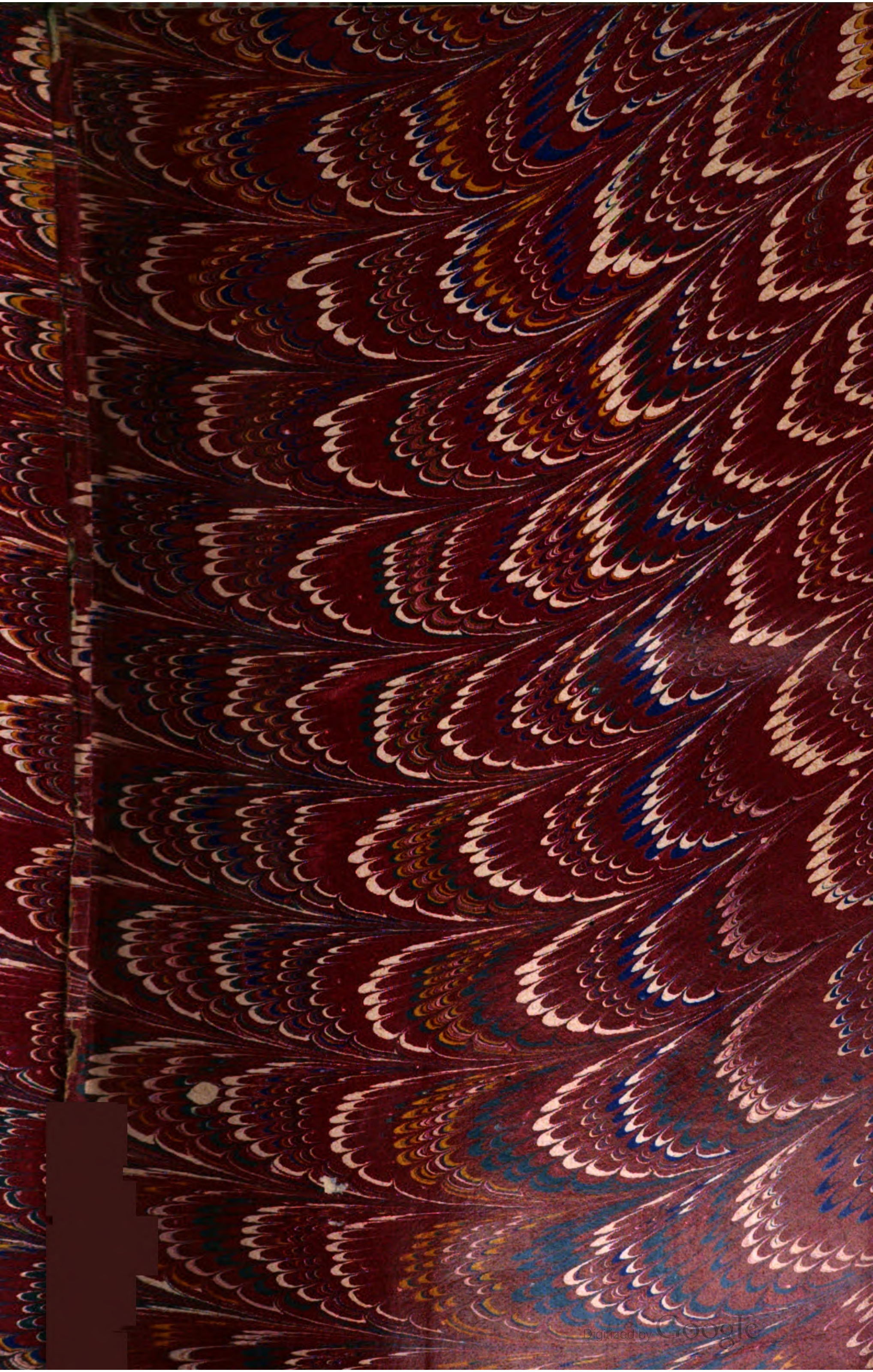

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> *Διὰ τὰ ὅμοια νοῦσος γίνεται, καὶ δὶα τὰ ὅμοια προσφερόμενα ἐκ νοσεόντων ὑγιαίνονται, . . . διὰ τὸ ἐμέειν ἔμετος παύεται.*
>
> ΙΠΠΟΚΡΑΤΗΣ.
>
> *Similia Similibus Curantur.*
>
> HAHNEMANN.

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CONTENTS OF VOLUME XI.

Original and Translated Papers.

ARTICLE. PAGE.

I.—Chronic Desquamative Nephritis (Johnson). Second Stage of Bright's Disease. Inflammatory Exudation (Frerichs). Large White Kidney. By E. E. Marcy, M.D., of New-York...... 1

II.—Clinical Lecture on Hepatization of the Lungs, with Hypertrophy of the Heart; Chronic Gastritis; Gastro-Enteritis; Chronic Aphonia; and Pertussis. By R Ludlam, M.D, Professor of Physiology, Pathology, and Clinical Medicine in the Hahnemann Medical College, Chicago, Ill. 30

III.—Euphorbia Corrolata,—an Inquiry into its Pathogenetic and Therapeutic Action. By Edwin M. Hale, M.D., of Jonesville, Michigan 49

IV.—Phthisis Pulmonalis. By F. W. Hunt, M.D., of New-York... 58

V.—The Pathology of Intermittents. Read before the Illinois Homœopathic Medical Society. By I. S. P. Lord, M.D., of Chicago, Ill. Published by request of the Society............ 76

VI.—What is Diphtheria? By J. Davies, M.D., of Chicago, Ill. ... 94

VII.—The Anatomy of the Hard Palate. By Wm. Tod Helmuth, M.D., of St. Louis, Mo. 101

VIII.—Clinical Record. Cases from Practice. By J. S. Douglas, M.D., of Milwaukie, Wisc. 107

IX.—Clinical Observation. By A. Leon, M.D., of New-York...... 110

X.—Cases from Practice. By John C. Morgan, M D., of Lebanon, Ill., 111

XI.—Humanity, Homœopathy, and the War. By John T. Temple, Professor of Materia Medica and Therapeutics in the Homœopathic Medical College of Missouri; Hon. Member of Illinois State Homœopathic Association, &c. 161

XII.—Some Remarks on the Medical Treatment of Diphtheria. By Walter Williamson, M.D., of Philadelphia, Pa. 168

XIII.—Phthisis Pulmonalis. By F. W. Hunt, M.D, of New-York... 170

XIV.—Third Stage of Bright's Disease. Small Contracted Kidney. Atrophied Kidney. Gouty Kidney. Third Stage of Frerichs, Reinhardt, Bright, Christison, &c. Advanced Stage of Chronic Desquamative Nephritis, of Johnson. Stage of Absorption. By E. E. Marcy, M.D., of New-York.................... 196

XV.—An Essay on Remedial Analogues, with Suggestions Relative to a Reconstruction of our Materia Medica. Read before the Illinois State Homœopathic Association. By E. M. Hale, M.D., of Jonesville, Mich. 206

XVI.—Diphtheria. Read before the Illinois Homœopathic Medical Association. By D A. Colton, M.D., of Chicago, Ill. 231

XVII.—Physiological Dietetics. The Distinction between Food and Medicines. Read before the Illinois Homœopathic Medical

ARTICLE. PAGE.

Association, at its Eighth Annual Meeting, Chicago, May 22d, 1862. By R. Ludlam, M.D. 238

XVIII.—Resection of the Sternal two-thirds of the Clavicle. By Brigade Surgeon E. C. Franklin, of the U. S. General Hospital, Mound City, Ill. 258

XIX.—Organic Stricture of the Œsophagus, and its Cure by Dilatation with Graduated Probang. By Wm. Tod Helmuth, M.D., of St. Louis, Mo. 260

XX.—Derangements of the Human Mind in their Relations to Physical Disease. Read before the Hahnemann Academy of Medicine. By F. W. Hunt, M.D., of New-York 321

XXI.—On the Importance of a Single Symptom. Read before the Michigan Homœopathic Institute. September 26th, 1862. By E. M. Hale, M.D., of Jonesville, Mich. 351

XXII.—Malaria—Atmospheric Diffusion. Infection of the Wind. By M. E. Lazarus, M.D., of New-York 370

XXIII.—Pathology a Practical Science. By R. Ludlam, M.D., of Chicago, Ill. 382

XXIV.—Surgery. 1. Operation for the Relief of Irreducible Femoral Hernia. 2. Extirpation of Fibroid Tumor of the Uterus. 3. Tracheotomy in Diphtheria. 4. Aphorisms in Gun-Shot Wounds. By Wm. Tod Helmuth, M.D., of St. Louis, Mo. .. 400

XXV.—Clinical Contributions. Number One. By E. A. Guilbert, A.M. M.D., Professor of Obstetrics, &c., in the Homœopathic Medical College of Missouri 422

XXVI.—Case of Ascites. By E. C Witherill, M D., of Cincinnati, Ohio, 429

XXVII.—Homœopathy in its Connection with the Progress of Man. By J. M. Long, M.D 432

XXVIII.—Puerperal Metritis, with Exfoliation of the Entire Mucous Membrane of the Uterus. Reported from memory by E. Holley, M D., of Hudson, N. Y. 436

XXIX.—Case of Softening of the Brain, its Treatment, &c. By E. M. Hale, M.D., of Jonesville, Mich. 481

XXX.—Surgery. A rare Case of Hepatic Abscess—over thirty pints of pus being evacuated;—seven operations performed;—death,—autopsy. By Wm. Tod Helmuth, M.D , of St. Louis, Mo , 486

XXXI.—Differential Pathogeny of Malaria, from Poisonous Effluvia of Animal Origin, including the Cadaveric and Fœcal. By M. E. Lazarus, M.D., of New-York 498

XXXII.—Derangements of the Human Mind in their Relations to Physical Disease By F. W. Hunt, M.D., of New-York. Continued from page 351 512

XXXIII.—The Radical Cure of Syphilis by Cowpox-Vaccination. By Wilhelm Jeltschinsky, M D., of Moscow, Russia. Translated by Samuel Lilienthal, M.D., of New-York 532

XXXIV.—Syphilization applied to Children. By W. Bœck, Professor of the University of Christiana 548

XXXV.—The Hæmorrhoidal Malady. By Dr. E. Escallier. (From *l'Art Medicale*) 558

XXXVI.—Theory of Homœopathy. By Dr. Altschul. A condensed translation by Dr. S. Lilienthal, of New-York 563

General Record of Medical Science.

PAGE
1. Phosphoric Paralysis 113
2. The Language of Light and Infinitesimal Doses 114
3. Antagonistic Effects of Belladonna and Opium 120
4. M. Malgaigne on Great Hospitals 121
5. Brass-Founder's Ague 122
6. The "Criminal" Insane 123
7. Friend's Asylum for the Insane, 125
8. Eczema 125
9. Intestinal Worms............ 125
10. On Vaccination, by Dr. Kallenbach, sen. 125
11. Santonine 127
12. The Legality of Drug Provings Recognized. An Account of the Malicious Prosecution of Dr. E. A. Lodge, of Detroit, for Manslaughter,—he being falsely accused of causing the death of Margaret Washington, who had been the subject of proving the drug Gelseminum, 269
13. Circulation of the Blood. By Dr. O. A. Woodbury, of Nashua, New-Hampshire........ 438
14. Medicine in Great Britain..... 445
15. Frozen Parts.—Frost-Bites.—Death by Freezing.......... 447
16. Conservative Surgery........ 450
17. A Cure by Nux-moschata..... 451
18. A Peculiar Disturbance of the Mind and a Peculiar Remedy, 451
19. Morbi Psychici cured by Dr. S. Horner 452

PAGE
20. Scirrhus treated by Dr. S. Horner....................... 458
21. Hoarseness (Raucedo) by Dr. Gaspari 453
22. Hæmostatic Power of Balsam Copaiva 454
23. Prosopalgia cured by Stannum, 454
24. Leucorrhœa Corridens cured by Ruta-graveolens. By Dr. Loin, in Anvers.................. 455
25. Ledum in Whooping Cough.. 455
26. Cod Liver Oil by St. Martin.. 455
27. Annotanda of Some Endemic and Epidemic Diseases of the Western States. Editorial... 582
    Cerebro-Spinal Meningitis—Spotted Fever........... 582
    Congestive Fever...... 584, 586
    Epidemic Erisipelas—Black Tongue.................. 587
    Malignant Double Tertian of the Mississippi........... 588
    Bilious Typhoid Fever..... 589
28. Influence of the Mind on the Body in Disease. Editorial.. 589
29. Influence of Mental Emotions on the Heart 593
30. Influence of the Conditions of the Body on the Mind....... 594
31. Verbascum Thapsus—Mullein, 594
32. Microscopical Examination of the Air................... 595
33. Diagnosis of the Wound of Garibaldi by M. Nelaton.... 595

Reviews and Bibliographical Notices.

1. Diphtheria. By Wm. Tod Helmuth, M.D................ 127
2. Manual of Homœopathic Theory and Practice, Dr. Lutze... 128
3. Braithwaite's Retrospect of Practical Medicine and Surgery 132
4. The Old and New Systems of Medicine Contrasted........ 138
5. The Medical and Surgical Reporter 139
6. Ethical Impediments to the Progress of Homœopathy throughout the Profession........... 141
7. Homœopathy in Venereal Diseases. By Stephen Yeldham, M.R.C.S., Surgeon to the London Homœopathic Hospital, Fellow and Vice-President of the British Hom. Society, &c. London: H. Turner & Co., (77 Fleet-Street. pp. 120)....... 292
8. Therapeutic Action of Atomic Doses 455

PAGE

9. The Medical Record of Australia 456
10. The Common Sense of Homœopathy 458
11. The Therapeutics of the Day .. 460
12. Homœopathy the Science of Therapeutics. By Carroll Dunham, M.D. 597
13. Principles and Practice of Obstetrics. By Gunning S. Bedford, M.D., New-York. Third Edition. 1863 600
14. A Course of Clinical Lectures on Diphtheria. Delivered before the Class of Hahnemann Medical College. By R. Ludlam, M.D., Prof., &c. Chicago. 1863 607
15. The Homœopathic Treatment of Diarrhœa and Dysentery. By P. P. Wells, M.D. Reprinted from the *American Homœopathic Review*, 1862 610
16. Remarks on Archbishop Whately's Letter on Medical Trades-Unions. By Wm. Bayes, M.D. London. 1863 612
17. The British Workman's Family Guide to Homœopathic Treatment. London 613
18. The Lung Disease in Cattle, or Pleuro-Pneumonia curable by Homœopathy 613

Miscellaneous Items.

1. An act to Incorporate the Homœopathic Medical Society of the State of New-York 142
2. Constitution and By-Laws of the Homœopathic Medical Society of the State of New-York, 142
3. Homœopathic Medical Society of the State of New-York 145
4. Annual Meeting of the Homœopathic Medical Society of Kings Co., N. Y 150
5. Homœopathic Medical Society of Oneida Co., N. Y., ... 150
6. Proceedings of the Tenth Annual Meeting of the New-Hampshire Homœopathic Medical Society 152
7. Homœopathic Medical College of Pennsylvania 153
8. Hahnemann Medical College of Chicago, Ill., ... 154
9. Western Homœopathic College, Cleveland, O., ... 155
10. Central Homœopathic Dispensary, N. Y. City 155
11. Michigan State Institute 155
12. The American Homœopathic Review, Vol. III., No. 1 155
13. The Homœopathic Observer .. 156
14. Transactions of the Illinois Homœopathic Medical Association, at its Eighth Annual Meeting in Chicago, May 21st and 22d, 1862 295
15. Dr. Cook, Physician of the Coral Islands 312
16. Logwood as a Disinfectant or Antiseptic 312
17. Pleura-pneumonia in Cattle ... 313
18. Portable Styptic 313
19. M. Bretonneau 313
20. The Dead House of the Vienna Hospital 314
21. Culture of Leeches 314
22. A New Hæmostastic 315
23. Carbonic Acid in the Treatment of Obstinate Ulcers 315
24. Filiaria 316
25. Diphtheria. — Perchloride of Iron 316
26. Bloodletting 317
27. Ledum in Whooping Cough .. 317
28. Poisoning by Arsenic 317
29. Books Received 317
30. Practical Cases from the German Journals 318
31. Anatomical Prizes 319
32. A New Work on Homœopathic Practice 320
33. Obituary 320
34. Michigan Homœopathic Institute 460
35. Practical Cases from German Journals 465
36. Highest Flight of the Balloon, 470
37. Homœopathic Medical Society of the State of New-York 471
38. Editorial Error Corrected 472

PAGE
39. Progress of Reform in the Ranks of "Regular Medicine."..... 472
40. Different Views on Doses..... 473
41. Lepra—Leprosy 476
42. Western Homœopathic College, Cleveland, Ohio......... ... 614
43. Hahnemann Medical College, Chicago.................... 614
44. Illinois State Homœopathic Medical Association......... 616
45. Homœopathic Medical Society of Northern New-York...... 616
46. Removal of Dr. Hale to Chicago, 617
47. Annual Report of the Inspectors of the Michigan State Prison. 617
48. Local Treatment of Ozœna and Catarrh..................... 618
49. On the Temperature of the Body...................... 618
50. Eighth Annual Report of the Bond Street Dispensary...... 621
51. Lepra Anæsthetica, (Continued from p. 480)............... 622
52. Intestinal Obstruction........ 624
53. The Mamillarium............ 628

Materia Medica.

Pathogenetic Characteristics of Drugs:

Petiveria-tetandria, Phellandrium-aquatum, Phosphorus, 156
Phosphoric-acid 157
Platina, Plumbum, Podophyllum, Peltabum, Pulsatilla, Ranunculus-bulb., Ranunculus-scel. 158
Phosphoric Paralysis........ 159
Chelidonium-majus in Neuralgia of the Eye-brows and Temples.................. 160

Pathogenetic Characteristics of Drugs. By Prof. J. S. Douglas, M.D.

Rhatania.................... 626
Rheum 626
Rhododendron 626
Rhus-radicans, Rhus-tox. 627
Ruta-graveolens 627
Sabadilla 627
Sabina 627
Sambucus 628
Sanguinaria, Sassaparilla, Secale..................... 628

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VOLUME XI. AUGUST, 1862. No. XLI.

Original and Translated Papers.

ARTICLE I.—*Chronic Desquamative Nephritis.* (Johnson.) *Second Stage of Bright's Disease. Inflammatory Exudation.* (Frerichs.) *Large White Kidney.* By E. E. MARCY, M.D., of New-York.

[Continued from Vol. X., p. 577—612.]

THIS form of the disease not unfrequently exists for many months without attracting any special attention, and without any apparent renal symptoms. We have known cases to advance to within a few days of a fatal termination with no abnormal phenomena except slight pallor of the skin, lassitude, and the occasional occurrence of dyspeptic symptoms.

In allusion to the insidious manner in which it sometimes becomes fully established, Dr. Johnson remarks as follows:* "A reference to case No. 13, will show that a patient may go to bed apparently in good health, and without having experienced any symptoms which had led him to suspect that his kidneys were unsound. In the night he is seized with symptoms of suppression of urine, and of severe abdominal inflammation. After an illness of a few hours he dies, and his kidneys are found to be so far disorganized by a disease, evidently of a chronic nature, that the wonder is, not that they ceased to act when they did, but that they had continued to discharge their functions so long.

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* "Diseases of the Kidney," pages 170 and 171.

"Again, in case No., 14, there was precisely the same disorganization of the kidneys as in the instance just alluded to. The patient was seized, after a slight indisposition, with palsy of one side, followed by complete insensibility, which soon ended in death. There was no appearance in the brain which would explain the symptoms, but the kidneys were in precisely the same state of chronic disease as those in the case just alluded to. The bladder was empty; no urine had been passed for several hours before death; and the patient's friends had often noticed that his urine was scanty, but he had appeared to be in tolerable health, and his medical attendant was not consulted before the last fatal attack."

These slight ailments may continue for an indefinite period—usually from two to eight months, when shortness of breath is observed after ascending a stairs, or other exertion, either accompanied or soon succeeded by the following symptoms: pale and waxen appearance of the skin; considerable emaciation; œdematous condition of the face, limbs, and often of the entire body; usually, some tenderness in the region of the kidneys on pressure, though this symptom is sometimes (*always* according to Becquerel) absent; dull, aching pains in the lumbar region, are occasionally, but by no means generally present; frequent desire to pass water, especially during the night; gastric, intestinal, cardiac, and pulmonary disorders are quite prone to obtain; rapid and difficult respiration, on making the slightest exertion, and often very distressing paroxysmal attacks occurring every evening and night, lasting from ten to fifteen hours, and rendering it impossible to retain a recumbent position for an instant during a paroxysm; debility; nausea; occasional vomiting; urine variable in quantity, color, and chemical and microscopical characters (See below); drowsiness; obtuseness of the mental faculties; convulsions; coma and death.

During the course of the disorder, a great variety of symptoms, not strictly pertaining to the malady, are often observed.

Among these we have noticed, burning heat in the head, particularly on the vertex, relieved by copious applications of Bay-rum, Cologne, &c.; a peculiar white appearance upon the tongue, mostly on the sides and under part, looking as if it had been par-boiled,—sometimes accompanied with burning, smarting, and soreness of the furred part, appearing and disappearing, and generally accompanied with an amelioration of the other symptoms during its continuance, and for a short period after its disappearance; putrid, sickening odor of the breath; pulse sometimes frequent, weak, and irregular (in cardiac complications), and at other times normal in frequency and volume; spasmodic twitchings of the muscles of different parts of the body, usually worse at night; severe paroxysms of pain at the pit of the stomach, apparently of a spasmodic character. Johnson alludes to the frequent occurrence of nose-bleeding and menorrhagia, and believes them to be in some way connected with the renal affection.

Becquerel asserts that the disease has usually the following three modes of commencement:

a. Chills, fever, vomiting, lumbar pains, pulmonary congestion, cough, rales, dyspnœa.

b. Fever and infiltration which shows itself in all parts of the body at once. This mode of attack he considers most frequent.

c. The disease advances stealthily, and would remain unknown even though mortal, without an examination of the urine.

Alterations of the Urine.—In quantity, it is variable—usually more abundant than in health, but sometimes less. In color it is mostly light, or colorless, varying from a smoky water color to a dirty brown hue. It very rarely contains blood-globules, but when it does the urine assumes the color of dirty broth. Its density is less than that of the acute form, although greater than that of normal urine. The specific gravity varies from 1005 to 1015. It has an acid reaction, and the usual tests precipitate albumen.

By the microscope we may detect epithelial cells, amorphous granular fragments, granular epithelial cylinders (the fall of the epithelial sheaths of the tubuli), termed by Dr. Johnson "granular casts," and in a very few instances, blood-globules. These blood-globules, according to Johnson, become more unfrequent the farther the disease advances from the acute stage, until in the third stage (small contracted kidneys) they are never to be found. Robin asserts that epithelial cylinders are occasionally found in normal urine, so that these appearances alone would not determine the existence of Bright's Kidney. Becquerel supposes that the quantity of albumen in these urines varies from $\frac{5}{1000}$ to $\frac{10}{1000}$.

Prominent Concomitant, or Secondary Phenomena. Dropsy.—As soon as the normal epithelium of the convoluted tubes has become so far degenerated and disintegrated as to be incapable of separating from the blood urea, uric-acid, and the other normal solids of the urine, they accumulate in undue quantities in the blood, and nature strives to eliminate them through other channels—the skin, the serous-membranes, the intestines, the lungs, the liver, and all other available outlets. During these vicarious processes of elimination, the capillaries of the tissues acted on, become obstructed, and their circulation impeded in such a manner as to permit exudations of serum through their walls, and thus dropsical effusions in various parts of the body. At the same time the congested malphighian-bodies allow the escape of undue quantities of serum, thus causing disalbumination of the blood from the normal standard of 70 or $\frac{80}{1000}$ to 10 and even $\frac{5}{1000}$. It is evident then that two morbid conditions constitute the most direct causes of dropsical effusions,—by retention of excrementitious urinary constituents and disalbuminution of the blood. Further on we shall again allude to this subject. Dropsy is not invariably present in this form of the disease, especially when the renal secretion is abundant, or when there are frequent and copious discharges from the bowels, by which the poisonous blood accumulations may be evacuated. In other instances, the constitution appears to possess the power to resist for a long time the deleterious action of the retained urinary constituents, without the supervention of dropsy or other troublesome symptoms. But in general, nature asserts her rights, and opens every available channel in order to expel the noxious matters from the vital fluid, even at the risk of irritating, and of producing serous effusions from these new and unused tissues of elimination. The water appears to accumulate in one or another place without apparent cause. Perhaps it is earliest and oftenest observed in the face than elsewhere; and in patients of active habits we generally find infiltration of the limbs and ascites. Effusion into the cavity of the chest is an early and rather frequent result of this disease; but we very rarely meet with ventricular dropsy.

The composition of the infiltrated water is the same as that of the serum of the blood diluted with much water. Of one thousand parts, the solid constituents constitute only from ten to fifteen parts, instead of eighty to one thousand, as in the serum, and forty to fifty to one thousand, as in affections of the heart.

In health, the proportion of albumen in the blood is from seventy or eighty to one thousand parts. In acute desquamative nephritis, the proportion is reduced below $\frac{65}{1000}$, at which point infiltration must occur. In the chronic forms, this disalbumination must be still greater, to give rise to dropsy.

These dropsical accumulations sometimes become so extensive as to cause very serious inconvenience, and not unfrequently danger to life. Pleural, ventricular and peritoneal effusions, are the most dangerous. Infiltrations of the extremities, and of the scrotum often become very extensive and troublesome; but they may be readily and safely relieved by delicate scarifications. We have often adopted this mode of temporary alleviation, and always with success and safety.

Respiratory Apparatus.—Among the vicarious channels for the elimination of the excrementitious renal accumulations in the blood are the pulmonary structures. In the act of elimination the capillaries of the pleura, the pericardium and of the cellular structure of the lungs often become engorged, and effusions more or less extensive occur.

Some of the first symptoms, therefore, which arrest the attention of both patient and physician, are shortness of breath, increased to a painful extent from the slightest exertion, and a sense of oppression throughout the entire thoracic region. In the first instance there is only pulmonary œdema with effusion into the air-cells of the lungs; but in more advanced stages of the disorder, large and dangerous accumulations occur in the thoracic cavity. In robust and plethoric individuals, pneumonias and bronchial affections are likely to be superinduced. In scrofulous subjects hemoptysis and tubercular consumption are not unfrequently developed.

We have already alluded to the periodical recurrence of evening and nightly paroxysms of dyspnœa. This symptom has been observed in both the second and third stages of the malady. It usually commences in the afternoon or evening, and continues with such severity as to prevent the patient from taking a moment's rest in the recumbent posture, until some time in the morning, when there is generally a remission for a few hours.

During the existence of this stage, if the patient takes cold, or is subjected to the influence of a cold and humid atmosphere, pleurisy or pericarditis may occur; although these attacks are far more common in the stage of absorption.

Albumen has often been detected in the urines of children suffering from membraneous croup. The rationale of this phenomena has not yet been fully explained.

Digestive Apparatus.—Another channel for the elimination of the retained urinary excrements, is the gastro-intestinal mucous membrane. The influence exerted upon the stomach is two fold; first in the form of irritation of the gastric mucous-membrane, and consequent symptoms of indigestion, like nausea, occasional vomiting, eructations, acidity, flatulent distention, heart-burn, oppression, gastric sensitiveness, &c., and secondly upon the nervous apparatus of the stomach, producing a train of severe neuralgic symptoms. The stomach sometimes becomes so seriously involved that the mucous membrane becomes thickened, softened, and in rare instances, ulcerated to a considerable extent. Severe pnroxysms of neuralgic pains—usually at the pit of the stomach, are not an unfrequent attendant upon the malady. We have known cases run through the entire second and third stages to a fatal issue, with scarcely a pain or other unpleasant symptom, except those which have been referred to the stomach—sometimes by both patient and physician.

The action of the urea, ammonia, &c., upon the intestinal mucous-membrane produces flatulency, sensitiveness of the bowels, and diarrhœa; and post-mortem examinations now and then reveal redness, ulcerations, and softening of portions of this structure.

Bernard detected ammonia in large quantities in the stomachs and intestines of dogs whose kidneys had been extirpated. This ammonia is supposed to arise from the conversion of urea, either, in the blood-vessels or in the digestive canal, from contact with the secretions it here meets with.

Brain and Nervous System.—Drowsiness, convulsions, and coma usually terminate the life of the patient. These symptoms approach gradually and increase in intensity for a period varying from a few hours to several days, when convulsions or complete coma extinguish life.

In two instances we have noticed the frequent occurrence of involuntary spasmodic twitchings in various parts of the body. These attacks are somewhat painful, mostly confined to special parts, but sometimes affecting several portions of the system at once.

As a general rule, cerebral lesions are not found in these cases, notwithstanding the very grave character of this complication. The direct cause of these cerebral phenomena is uræmic, or according to Frerichs, ammoniacal contact with the cerebral tissues, or serous effusion into the ventricles.

The immediate effect of uræmic, or ammoniacal poisoning upon the cerebral and nervous tissues, is to impair their vitality and to depress their ordinary manifestations. This is evident from the insidious approach and progress of the symptoms: general indifference to surrounding objects; somnolence; slowness of speech; the patient is with difficulty roused to a full appreciation of what is transpiring around him, and seems to fall asleep in the midst of a conversation, with his eyes open; deep and slow respiration; temporary confusion of ideas; sluggish performance of all the functions.

Cardiac Complications.—At an early period, Dr. Bright observed that an intimate connection existed between granular kidney and heart-disease. He supposed that the cardiac affections were for the most part due either to the stimulant action of the poisoned blood upon the heart itself, or upon the capillary circulation, affecting it in such a manner "as to render greater action necessary to force the blood through the distant subdivisions of the vascular system." Johnson, Rees, and other eminent English writers adopt the latter explanation.

Hypertrophy and dilatation are the most common organic changes of the heart super-induced, or connected with chronic desquamative nephritis. And from the circumstance that valvular lesions are quite uncommon in these cases, it has been inferred that the abnormal blood constituents in their continual passage through the heart have stimulated its muscular structure into hypertrophy or dilatation.

When the renal malady exists in gouty or rheumatic subjects, we shall sometimes find valvular lesions, fibrous depositions, and other serious organic changes which had been produced by these maladies before the existence of the kidney-disorder. Such instances render cases still more complicated and dangerous, both from the local and remote symptoms to which they give rise. It is highly probable that the kidneys and the heart often become affected simultaneously, and from the same cause, in individuals suffering from gout. The action of the excessive quantity of uric acid, the urates, &c., in their constant passage through the heart, producing organic changes in this organ, and during their elimination through the kidneys, congestion of the *tubuli uriniferi*. In examples of this kind, both organs are affected with equal promptness and severity, and they should both receive prompt and efficient attention from the physician.

Hepatic and Spleenic Complications.—These organs sometimes become involved during the existence of renal disease. For reasons similar to those which obtain in the production of pulmonary, gastric, cerebral, and cardiac affections, the liver, and in all probability, the spleen take on morbid actions of various kinds, according to the constitutional, or acquired peculiarities of patients. Examinations of the alvine discharges during the progress of albuminuria, always indicate more or less disorder of the hepatic secretion. And if the same attention were to be given to the minute changes caused by the retained urinary excrements upon the liver and its secretion as has been bestowed upon the kidneys and the urine, we have no doubt that much additional light would be thrown upon the intimate nature of the malady; and that many morbid conditions which we are at present inexplicable could be satisfactorily explained. In the act of circulation the blood-poison is constantly brought into contact with almost all parts of the organism, and operates simultaneously upon those organs and tissues with which it has affinities—as for example, the kidneys, the skin, the liver, the lungs, the digestive apparatus, the serous membranes, &c. The results of these impressions are derangements of function or organic lesions, according to the amount of retained foreign matters in the blood, the nature and importance of the tissues involved, and the constitutional peculiarities of patients. And as a disordered function of one organ is often compensated for by extra and vicarious labors of other organs, a mutual morbid reaction is established between various tissues of the body for the general good. Each structure strives to expel the noxious invader, each shares the general danger, and each receives more or less injury. Johnson asserts that the liver is affected in a large proportion of cases of chronic nephritis, and assigns as a reason the frequent common origin of the two diseases, viz., high living and intemperance in the use of alcoholic liquors. This gentleman regards *cirrhosis* as the most common hepatic complication in these cases, although he has occasionally met with contraction and induration of the liver, with its usual concomitant *ascites.*

Rheumatic and Gouty Complications.—The frequent occurrence of chronic nephritis in gouty subjects has been noticed by many writers. Upon the supposition that the renal affection was always associated with, and dependent upon a gouty diathesis, Dr. Todd gave to the third stage of the malady the designation of *Gouty Kidney.* This hypothesis of Dr. Todd is doubtless erroneous; but it is nevertheless true that the same abnormal blood constituents which produce the phenomena of gout, are also capable, under favorable circumstances, of developing desquamative renal disease. But as this is only one of many cases possessing similar powers, the designation of Dr. Todd is manifestly inappropriate. The renal affection is by far the most common in those cases of gout which appear to be associated with chronic eruptive disease, especially porrigo and eczema. The skin and the kidneys are the two chief eliminators of the morbid blood-constituents, in both gout and rheumatism; and it is for this reason that we so often find cutaneous and renal complications in old cases of this description. The passage of the urates, uric acid, &c., through the cutaneous capillaries obstructs and retards their action, rendering them incapable of throwing off the effete matters presented to them, and thus causing the accumulating matters to force their way out of the blood, in the form of vesicular or pustular eruptions. In passing through the kidneys the same substances often cause chronic nephritis. When brought in contact with the smaller joints they give rise to gout. Less frequently the renal affection has been associated with chronic rheumatism, and for the same reasons as those just adduced with reference to gout.

Uterine Complications.—Of eleven cases of chronic albuminuria in females which have come under my observation, all but one had suppression of the menses during the continuance of the disease. This exceptional one had frequent and exhausting attacks of menorrhagia, which contributed much to hasten a fatal result. Johnson, while alluding to the general absence of the menses in these cases, has observed menorrhagia in so many instances as to deem the circumstance worthy of special mention. Not unfrequently a sudden check to menstruation is the first link in the morbid chain of symptoms which lead to albuminuria; and it is not impossible that a vicarious menstruation through the kidneys may in some instances develop in them the malady in question. Rayer suggests that the constant drain from the blood of its hæmatosin, induces such a condition of anæmia as to arrest menstruation from pure lack of vitality necessary to sustain this function.

ALTERATIONS OF THE BLOOD.

In estimating the composition of the blood in albuminuria, regard must be had firstly, to the primary causes of the blood-contamination, and secondly, to their effects upon the kidneys, and the further alterations of the blood from renal obstruction. If the original blood-poison be one of a transient nature and easy of elimination, the issue will probably be favorable; but if the primary cause is of a chronic character, persistent, deep-seated, readily reproduced, and difficult of removal, our opinion respecting the final result must be unfavorable. In the first category may be included retained perspiration, scarlatinal, erysipelatous, typhoid, choleraic, alcholic, and other similar agencies; while in the latter class we may place chronic gout and rheumatism, certain chronic cutaneous affections, constitutional syphilis, scrofula, incurable hepatic, cardiac, and pulmonary disorders, deleterious drugs, &c..

Healthy blood may be said to consist of three separate elements, viz; 1, *the red globules*, suspended in their colorless liquor; 2, *fibrine;* 3, *serum*, composed of albumen dissolved in alkaline water. Besides these principal elements it contains phosphates of magnesia, ammonia, and lime, lactates of soda and magnesia, and common salt. The analysis of Dumas of 1000 parts of healthy blood, gives 790 of water, 127 of globules, 3 of fibrine, and 80 of solid constituents of the serum, of which 8 are inorganic. Any material alteration of these normal constituents induces more or less derangement of the general health; and the presence of either of these elements in the urine is a sure indication of serious renal lesion. So any addition to the blood of substances foreign to it, must of necessity give rise to more or less disturbance, according to the nature of the contaminating agent. The most prominent alterations of the blood in chronic Bright's disease are, deficiency of albumen in the serum, which is usually of low density, great diminution of the red-globules, and the retention of certain urinary excrements—urea, uric acid, and the several retained salts of the urine. Andral and Gavarret made five analyses of the blood in many different cases of the disease, and with the following average result: of 1000 parts of blood, they found a considerable increase of water (837·1 in place of 790; nearly the natural quantity of fibrine (2·7 in place of 3); a marked diminution of the red globules (91·8 in place of 127); a notable diminution of the solid matters of the serum, and especially of albumen (68·4 in place of 80).

Until a recent date it has been supposed that most of the secondary morbid phenomena incident to this affection, were due to the presence of urea in the blood, and to the action o this substance upon the various tissues of the organism. From this hypothesis the malady has received the designation of *uræmia.* But the experiments of Frerichs have placed this matter in a new light. This gentleman denies that the blood-poisoning is due to urea, but attributes it to carbonate of ammonia, which has been formed from this substance within the blood-vessels. He infers this from the following circumstances: ammoniacal odor of the breath; chemical indications of ammonia in the breath; traces of ammonia in the alvine discharges, and in several secretions of the body—the perspiration, bile, and certain mucous and serous secretions; and an abnormal quantity in the blood, (of which it is a natural constituent, and serving to retain it in a fluid state).

As an additional confirmation of this view Frericks adduces the fact that large quantities of urea are sometimes detected in the blood of patients who remain free from all cerebral, and other symptoms, which are supposed to be peculiar to uræmic poisoning. Injections of urea into the blood-vessels of dogs, have also been made without producing its supposed characteristic effects upon the organism; while similar injections of carbonate of ammonia have speedily induced convulsions. Another circumstance confirmatory of this opinion of Frerichs, may be found in the fact that the pathogenesis of carbonate of ammonia corresponds very closely with the phenomena of Bright's Disease. The following symptoms from "Jahr's" Symptomen-"codex," page 67, demonstrate this: "dropsical swellings; the head feels muddled, dull, stupefied; great difficulty of breathing, especially in ascending a few steps, or on making the least exertion; frequent palpitation of the heart; severe dyspeptic symptoms; great emaciation of the whole body; comatose conditions; convulsions." Both urea and carbonate of ammonia are normal constituents of healthy blood, the latter in all probability being converted from the former, by the action of the albumen of the serum within the blood-vessels, and so long as the proper proportions are maintained, no disturbances or derangements of function occur; but when urea in excess pervades the blood, it is rapidly converted into carbonate of ammonia, the blood becomes poisoned, and the secondary effects of chronic nephritis due to the action of carbonate of ammonia, manifest themselves. When we remember with what facility urea may be converted into carbonate of ammonia by contact with fermentescible substances like albumen, mucus, and certain alkalies, and that several of these substances are always present in the blood of patients suffering from albuminuria, the hypothesis of Frerichs will not appear unreasonable. So long as the normal composition of the blood remains unchanged, only the necessary quantity of ammonia to retain it in a fluid state, is converted from the circulating urea; but when this condition becomes changed, and new elements are added to the blood, other affinities occur, new chemical actions takes place, inordinate quantities of ammonia are formed, and *ammoniacal* poisoning results.

Schetlein and Renling object to this hypothesis, because that ammonia (CO^2 Az H^3) is expired during the course of many diseases, typhoid fevers, yellow fever, cholera-asphyxia, malignant erysipelas, small-pox, scarlet-fever, and similar maladies, and also in the death agony. In these instances the ammoniacal breath is caused by an actual loss of vitality and consequent decomposition of the blood, by which the ammonia which holds it in solution, is set free and allowed to escape through the lungs. In chronic nephritis quite a different condition obtains, since there is no actual decomposition of the blood, and no diminution of the normal amount of ammonia; but a constant excess of this substance derived from the retention and conversion of urea. Nature strives to eliminate this superfluous agent through the lungs, the intestinal-canal, the skin, and perhaps other channels. It is doubtless true that urea also exerts a deleterious influence upon the system when existing in excess in the blood; but its toxical properties are much less important than those of ammonia. Other retained urinary substances are likewise capable of poisoning the blood. Gallois has repeatedly demonstrated this fact with regard to an excess of uric acid in the blood. This agent poisons in a less dose when injected into the blood than when taken by the stomach. It causes acceleration of breathing, trembling of the limbs, jerking of the muscles, subsultus, convulsions, tetanus and death.

PATHOLOGICAL CONDITION OF THE KIDNEYS.

The following is an excellent general description of the condition of the kidneys in this form of the disorder. "The kidney is still much larger and heavier than is natural, and smooth on its surface; but the sanguine congestion is diminished, or gone; while the inflammatory exudation into and among the proper tissues of the glands is great and manifest. This exudation, by its presence and its pressure within and around the tubules, empties the capillary vessels of their blood, and keeps them empty. The cortical portion of the kidney, still unduly broad, loses its red color, becomes pale or yellowish, and contrasts more strongly with the red lines of the pyramidal bodies. Gradually the matters exuded suffer further change, and sometimes undergo a fatty degeneration. The tubules lose their uniform cylindrical shape, and bulge a little here and there; their epithelial cells enlarge, become opaque, contain granular matter, and perhaps oil-globules; finally, they crumble down, and are partly washed away with the aqueous portion of the urine which proceeds from the malphighian bodies."* The kidneys are generally enlarged, slightly deformed, and a little augmented in consistence. Granulations on red or grayish ground of the size of millet-seeds, accumulated or isolated, and appearing whiter than the rest of the tissues—more abundant at the two extremities, and towards the outside of both kidneys. The cortex thickens at the expense of the tubular substance.

Authors have differed so much respecting the classifications of the various forms of the disease, that some confusion exists in their symptomatic and pathological description. Thus, Dr. Bright recognizes *three forms or varieties:* Martin Solon admits *five degrees or varieties:* M. Rayer makes a general division of the malady into *acute* and *chronic albuminous nephritis*, and then subdivides these into six other forms—*two* pertaining to the *acute*, and *four* to the *chronic* stage of the disorder: Christison admits only *three degrees* of the disease, the two first characterized by similar anatomical conditions of the kidneys, viz., a deposit in the cortical substance of a grayish yellow matter, slightly granulated in the first degree, and decidedly so in the second degree, the granular substance resembling cheese, and involving chiefly the cortical substance. He usually found more sanguineous congestion in the first, than in the second degree. In the third or last degree, the morbid deposit gradually invades the remaining tissue of the kidneys, impairing to a greater or less extent their normal structure and functions. By this it will be perceived that Christison recognizes only one kind of morbid change for all of his three degrees, the differences consisting in the *extent* rather than the *kind* of morbid action. Bright denies the existence of any morbid deposit in the *first form:* but asserts that the cortical substance is tranformed into a granular tissue in the *second form.* In this second form he always found the kidneys still larger than natural, and that he could render the granulations more distinct by maceration. The third, fourth, and fifth forms of Mr. Rayer, and the second and third degrees of Martin Solon, correspond with sufficient accuracy for practical purposes, to the second stages of the English writers. In all instances, the volume and weight of the kidneys are above the normal standard, the red and marbled spots peculiar to the acute form, have diminished or entirely disappeared, granular deposits are found in the cortical substance, and sometimes in the tubular cones, more or less thickening of the mucous membrane of the pelves and calices of the kidneys, the external surface of the kidneys is ordinarily of a pale yellow color, but is now and then dotted with milk-white spots, and glossy, or, in a very few cases, with a few brown or slate-colored spots. One of the most direct and important effects of the disease upon the renal glands, is the partial or total destruction of the epithelial lining of the convoluted tubes. During the earlier periods of the affection, the cells are not ordinarily detached in very large quantities, and as these are washed off rapidly by the watery portion of the urine from the Malphighian bodies, the renal function is only moderately disturbed. But after the desquamative process has continued for a considerable period, a greater or less accumulation of epithelial cells takes place in the tubes, and they become so much choked up and obstructed as to prevent their reformation. In the mean time they become disintegrated, the tubes are distended, pressure is made against the remaining epithelial linings of the tubes and the Malphighian bodies, thus adding an additional cause of irritation to the renal structures.

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* "Watson's Practice of Phys.," p. 1028.

"A microscopic examination shows that some of the tubes become so completely filled by their epithelial contents, that a further formation of cells within them is impossible for want of room, so that the reproduction of epithelium appears to be entirely arrested."* After this process of desquamation and disintegration have continued for some time, "the basement membrane of the tube is thus left quite denuded, or with only a few broken particles of epithelium scattered over its surface." † Dr. Johnson describes another process by which the tubes become destroyed without any actual desquamation of epithelium. This process is denominated *disintegration* of the epithelial cells. In the process of desquamation the cells are thrown off from the basement membrane into the convoluted tubes, entire, and are either washed out of the tubes by the watery part of the urine, or accumulate within the tubes to their injury. "Disintegration may occur, however, either in the cells which have accumulated in the tubes after being shed in an entire form by a process of desquamation," or in those still attached to the tubes.

"With reference to the two processes, already alluded to," remarks Dr. Johnson, "by which the epithelium becomes disintegrated, I have observed that only the true desquamative process leaves the tubes quite denuded, and that the disintegration of the epithelium, unaccompanied by desquamation, destroys the tubes without a previous denuding process." ......Apparently the most common "result of the destruction of the epithelium, is the gradual wasting of the tube."...... "The materials which are occasionally found in the degeneration of the tubes are, first an unorganized fibrinous or albuminous material; second, oil; and third, serum."‡ Johnson supposes that this fibrinous or albuminous material is secreted by the basement membrane after the destruction of its epithelial cells."

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* "Diseases of the Kidney," by Geo. Johnson, p. 212. † *Loc. cit.*

‡ Johnson.

After the convoluted tubes have become denuded by the destruction of their epithelium, they occasionally become dilated into transparent cysts, containing serum, and sometimes thick and discolored liquids. In other and rare instances, some of the denuded tubes become lined with transparent nucleated cells, which are supposed by Johnson, to serve as a substitute for the normal epithelium, and whose office is "to secrete a serous or watery liquid." Respecting the condition of the blood-vessels, they become distended with blood of a vitiated quality, their linings become irritated and thickened, and their entire structures become so enfeebled as to impair or suspend their normal functions. In allusion to this subject Johnson remarks: * "the appearances which I have observed in the blood-vessels are such as indicate an impediment to the circulation through the inter-tubular capillaries, and a consequent increase of pressure upon the vessels which, in the order of the circulation, lie behind these. The Malphighian capillaries and the arteries have their coats remarkably thickened, while the walls of the inter-tubular capillaries and of the emulgent vein present no appearance of hypertrophy or thickening."

† "We consider the nature of Bright's disease to consist in an inflammatory process, which proceeds from a stage of hyperæmia to one of stasis, and then gives rise to a product, which is not only remarkable by its peculiar character, but which, in well-marked cases, by its excessive accumulation, causes a singular alteration in the appearance and structure of the kidney. It commonly runs, as we have already stated, a chronic course, with occasional exacerbations, but it is sometimes acute."

The following are among the pathological degenerations observed with the microscope by Kolliker in Bright's disease. * "The *membrana propria* is frequently thickened to 0·001, or even 0·002 of a line, when it often presents, on the inner aspect, very delicate, closely approximated, transverse striæ. The epithelial cells, particularly in the cortical substance, frequently contain oil-drops in considerable quantity, so as often to present a deceptive resemblance to the cell of a fatty liver, and at the same time they are usually enlarged to a diameter of 0·02 of a line. Together with the oil, pigment granules (of the coloring matter of urine?) occur in them (also in the straight canals), whereas the concretions of uric acid and calcareous salts, which are so frequently met with in the canals of the tubes in the vertebrata, have not as yet been demonstrated with certainty in the cells themselves. Colloid-like, bright yellow masses are very frequent in the epithelial cells, which then most usually increase in size, dilate into slender cysts as much as 0·05—0·072 of a line long, and finally, by bursting, empty themselves of the cholloid substance, whence the latter is found free in the uriniferous ducts, and also in the urine."......

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* Diseases of Kidneys, p 228.

† Rokitanski's Path. Anat., Vol. I. p. 155.

"The Malphighian bodies may also expand into cysts, in which, together with a clear fluid, the atrophied *glomerulus* is often visible on the wall."

"The *tubuli uriniferi* contain *fibrine*, in cylindrical masses, corresponding to the cavities of the tubules, and also the above mentioned *colloid-like substance;* concretions in the ducts of Bellini, consisting, in the adult, chiefly of carbonate and phosphate of lime: in new-born infants, of uric-acid salts, which give the pyramids a brilliant golden-yellow color, and, if not exclusively, still only occur in children who have already respired (between the third and twentieth day after birth)."

DIAGNOSIS AND PROGNOSIS.

The principal phenomena which pertain to chronic albuminuria are the following: urine pale and watery, sometimes slightly turbid, or smoky—usually augmented in quantity—of a diminished specific gravity—of an insipid odor resembling beef-broth—persistently frothy on agitation—albuminous—deficient in urea and the normal salts, and containing "granular casts," scattered portions of disintegrated epithelium, and a few entire epithelial cells; œdema of the feet and ankles, afterwards extending to the legs and thighs, and often general infiltration of the cellular tissue, and effusions into the serous cavities; unusual paleness of the skin, in consequence of the poverty of red-globules in the blood; excess of urea, carbonate of ammonia, and urinary salts, and a diminution of albumen and red-globules in the blood; and in a majority of cases dyspeptic symptoms, dryness of the skin, and habitual dyspnœa, especially on making any exertion. From acute albuminuria it may be distinguished by the lighter color of the urine, its greater quantity, its lower specific gravity, the presence of granular casts, and scattered bits of disintegrated epithelium, absence of blood-globules, less renal irritation and pain, less febrile disturbance, and the less rapid progress of the malady. From hepatic, cardiac, and other forms of dropsy, as well as from other maladies having similar symptoms, it may be recognized by the presence of albumen, and disintegrated epithelium in the urine.

The prospects of recovery will depend upon the duration and extent of the renal affection, the secondary complications to which it has given rise, and the curability or removal of the acting cause. If the convoluted tubes have entirely lost their epithelial lining, and other formations have taken their place, like cysts or morbid deposits; or if the tubuli often having been denuded of epithelium, have shrunken and become nearly obliterated, a cure must not be expected. This condition will be indicated by the gradual diminution in the urine, of epithelium, the continued absence of urea and the normal urinary salts, the persistent diminution in the density and lightness of color of the urine, paleness of the skin, great emaciation, dropsical infiltrations and effusions, and other secondary ailments. A sudden diminution of the urinary secretion, especially in advanced stages of the disease, indicates immediate danger. The most common and dangerous of these secondary affections are inflammations of the serous membranes of the thorax, abdomen, and brain, or effusions into their cavities. Of these, the cerebral complication is the most alarming, and the one which most frequently terminates life. Next in importance to this are effusions into the pleural and peri-cardial cavities, from whence proceed the distressing paroxysms of dyspnœa and palpitation of the heart which so often afflict the subjects of this malady. When one or more of these serious complications are present, and the abnormal conditions of the urine above alluded to obtain, the prognosis will be unfavorable.

But when the exciting cause, is susceptible of ready removal, like abuse of alcoholic liquors, and exposure to a cold and humid atmosphere, and the renal desquamation has not been of long-standing or extensive, a reasonable expectation of cure may be entertained.

Valleix in his "*Guide Du Medecin Practicien*" p.. 154, presents us with the following diagnostic table.

CHRONIC BRIGHT'S DISEASE.	OTHER CHRONIC AFFECTIONS WHICH PRODUCE DROPSIES.
Urine *pale,* smoky, and having an *insipid odor.*	Urine of a *normal color,* and preserving a *urinous odor.*
Its density is *diminished*; and it has lost most of *its salts and urea.*	Density *normal; salts and urea normal.*
Albumen in *considerable quantity,* and *always present.*	Albumen *in small quantity;* and only appearing *transiently.*
Œdema almost always *commences in the lower limbs;* and ascites *comes afterwards.*	In *diseases of the liver,* ascites *precedes œdema.*
Other slight symptoms of Bright's disease.	*Characteristic symptoms* of diseases of the heart, liver, &c.

ACUTE OR CHRONIC BRIGHT'S DISEASE.	SIMPLE ACUTE OR CHRONIC NEPHRITIS, WITH ALBUMINOUS URINES.
No fever (chronic form) or *slight fever* (acute form).	Always *pretty well marked* fever.
Dropsy.	*No dropsy.*
Never Suppuration.	Often terminates in *suppuration.*
Pain in the kidneys *wanting or slight.*	Pain in the kidneys *more or less severe.*
No painful retraction of the testicles, *nor pains* in the grandes lèvres, &c.	*Painful retraction* of the testicles, and *pain* in the grandes lévres, &c.

ALBUMINOUS URINE OF BRIGHT'S DISEASE.	URINE RENDERED ALBUMINOUS BY THE PRESSURE OF PUS.
No purulent globules.	*Purulent globules*, distinguishable by the microscope.
Urates and phosphates *in less quantity* than natural.	Salts often *more abundant* than in the normal state.
Other symptoms of Bright's disease.	Symptoms of inflammation of the urinary passage.
No pellicle (*cremor*) on the surface.	*Pellicle* (*cremor*) on the surface, after a few hours repose.

Treatment.

Aconitum-napellus.—*Symptoms:* face pale, sunken and bluish.—Stupid expression of countenance.—Skin of a deep yellow, or white color.—Heat and dryness of the skin.—Coldness of the extremities.—Sleepless and restless at night.—Sudden sinking of strength.—Paroxysms of suffocation with anxiety, and aggravation of the difficulty in the evening.—Respiration short, imperfect, irregular, with feeble pulsations of the heart.—Shortness of breath, especially when sleeping, after midnight, or when rising from the recumbent posture.—Pressure in the stomach and hypochondria accompanied with paroxysms of shortness of breath, and even asthmatic symptoms.—Pleuritic, pneumonic, and cardiac complications.—Nausea, vomiting, thirst, general heat, profuse sweats, and enuresis.—Peritonitis.—Ascites.—Pains in the loins.—Sensitiveness in the region of the kidneys.—Numbness in the small of the back, extending as far as the lower limbs.—Drowsiness.—He sleeps while sitting in his chair with his head bent forward.—Dyspnœa, convulsions, paralytic weakness and death.—General convulsions.—Convulsive movements of separate parts—the cheeks, extremities, &c.—Stupor with convulsive motions of the facial muscles, and the eyes closed.—Loss of consciousness during the convulsions.—Copious discharge of urine, which deposits a red sediment after standing.—Retention of urine.—Enuresis, sometimes accompanied with profuse sweat, diarrhœa, and colic.—

Pathology.—See page 579, Vol. X., No. XL.

Clinical Remarks.—When the renal affections become complicated with disease of the serous membranes, like pleuritis, peritonitis, and arachnitis, Aconite will prove an important remedy. So likewise, in hepatic, pneumonic, enteritic, and other imflammatory complications, it must always be regarded as one of our most valuable medicines. In such cases it must be looked upon in the light of an auxilliary rather than as a direct local specific. The symptoms are usually worse in the evening and early in the morning.

AMMONIUM-CARBONICUM.—*Symptoms:* face pale and bloated. Paleness of the face with physical and moral weakness.—Muscles soft and flabby.—Impaired memory; mind dull and confused.—Drowsiness in the day time; uneasy, disturbed and unrefreshing sleep at night.—Extreme lassitude and sense of fatigue.—Weakness of digestion.—Pressure at the pit of the stomach, nausea, and oppression after eating.—Dyspnœa and palpitation of the heart after every exertion.—Difficult breathing at night.—Painful oppression of the chest.—Pain in the small of the back, increased by motion or walking.—Bruised or shooting pains in the region of the kidneys.—Violent throbbing pain in the small of the back and in the loins when at rest.—Drawing pain from the small of the back, extending to the abdomen and hips.—Spasmodic twitchings of the arms.—Convulsions.—Frequent urging to urinate especially at night.—Involuntary emissions of urine at night.—urine turbid, whey-like, and very ammoniacal and musty smelling.—Discharge of urine leaving chalk-like spots.—Cloudy, reddish urine mixed with blood.—Symptoms worse in the evening and in the open air.

Pathology.—Lining membrane of the kidneys inflamed and thickened.—Kidneys enlarged, soft, of a light-yellow color, and the convoluted tubes obstructed with detached epithelial cells (in animals).

Clinical Remarks.—This medicine has proved very beneficial in albuminous nephritis following scarlatina, typhoid fevers, malignant erysipelas and small-pox. In such cases we have observed unequivocal benefit from the employment of the lower attenuations. A reference to the pathogenesis above given will enable the physician to determine its homœopathic relations with special groups of morbid symptoms.

Apis-Mellifica.—*Symptoms:* paleness of the face.—Œdematous swellings of the face, and extremities.—Nausea, eructations, heart-burn, rapid breathing at night.—Difficult and anxious respiration after exercise.—Hurried and difficult respiration with fever and headache.—Pain and soreness in the region of the kidneys on pressure or on stooping.—Constant dull pains in both kidneys, with very small secretion of red urine.—Frequent and copious discharge of urine.—Repeated micturition every few minutes.—Burning in the urethra before and after micturition.—Frequent and painful urging to urinate, with scanty discharges of urine mixed with blood.

Pathology.—(See Apis, p. 580, Vol. X., No. XL.

Clinical Remarks.—This is undoubtedly one of our most valuable remedies in both the first and second forms of Bright's disease. If administered in doses sufficiently attenuated, it will often afford marked relief, and sometimes effect permanent cures. It is to be regretted that more careful experiments have not been made with reference to its special action upon the kidneys, and the morbid alterations it produces upon the secreting tubes and other portions of the renal tissue, as well as in the urine. This defect in proving, applies to most other drugs as well as to this one.

Apocynum-Cannabinum.—As a palliative in removing the dropsical accumulations consequent on this form of renal disease, this medicine is held in high estimation by many physicians of our school. Several medical men of this city are in the habit of prescribing "Hunt's decoction," and, as they assure us, with much success. (See Apocynum-cannabinum, p. 581, Vol. X., No. XL.)

Arsenicum-Album.—*Symptoms:* face pale and sunken; or lead-colored, or bluish, or yellow, livid and disfigured; face swollen from anasarca; face bloated, puffed, and red, or pale. Emaciation. General anasarca. Dropsy of the the chest with the usual concomitants, suffocative oppression, and arrest of breathing, in the evening, or at night in bed; anxious and oppressive shortness of breath on walking, or on making any exertion; palpitation of the heart, particularly at night. Abdominal dropsy with the usual concomitants, indigestion, oppressive respiration, &c. Nausea, vomiting, eructations, distention and burning of the stomach after eating, sensation of faintness at the stomach, tremulousness of the body. Pain in the kidneys, extending towards the bladder, and then vesical tenesmus. Sense of fullness and congestion in the renal region. Turbid urine which deposits a sediment and looks like clay. Urine alternately increased and diminished. Thick, cloudy, pus-like urine. Frequent urging to urinate, especially during the night. Involuntary micturition, even at night during sleep. Urine colorless, turbid, albuminous, and depositing a slimy sediment. Frequent, painful, and difficult micturition. Urinary secretion diminished, or suppressed. Spasms. Convulsions. Coma. Symptoms worse in the evening, at night, and after eating.

Pathology.—A reference to the pathology of Arsenicum at page 583 in No. XL. will demonstrate from a pathological point of view, its strong homœopathic relations to this form of renal disease. Both the morbid alterations of the glands, and of the constituents of urine, bear a most striking analogy to the most important phenomena of the present malady.

Clinical Remarks.—We have already alluded to the remarkable homœopathicity of this medicine to acute Bright's disease at page 583 in No. XL. It will be found equally appropriate in the chronic varieties of the affection. Indeed, when the renal disease is accompanied with dropsical effusions, or serious gastro-intestinal disorder, we regard Arsenicum and Apis as our two most reliable remedies, for they correspond not only to the local and immediate symptoms of the renal disorder, but to the more serious and secondary constitutional phenomena. These maladies act best at the medium and higher attenuations.

Asparagus-Officinalis. — *Symptoms.* — Drowsiness, lassitude, and dullness of intellect. Rapid and irregular pulsations of the heart, worse on exercise. Oppression of breathing, aggravated by exercise. Slight pains in the kidneys, felt mostly during the afternoon. Emission of a small quantity of pale, yellow urine, which soon becomes turbid and filled with a whitish dust, which settles after a few hours, leaving the urine clear: after the vessel has been emptied and rinsed, a fatty substance was observed to adhere to its walls. Urine abundant, limpid, and exhaling an odor *sui generis.* Frequent and painful micturition.

Pathology.—See page 585, Vol. X., No. XL.

Clinical Remarks.—This drug possesses but few symptoms which correspond to this form of the affection. In the few instances where it has apparently afforded some relief, it has been employed in from the third to the twelfth dilutions.

Astacus-Fluviatilis.—*Symptoms:* face and eye-lids puffed, great prostration of strength, and slight delirium. Drowsiness and tendency to stupor—internal coldness, great sensitiveness to the open air. Trembling in the right renal region. Sudden tearing pain in the right renal region, when sitting down. Emission of a large quantity of pale, yellow, and acid urine. *Urine containing much albumen.* Urine of a deep-yellow color and leaving a deposit.

Clinical Remarks.—We have prescribed it with benefit in one case of chronic albuminuria, which appeared to be connected with gout and chronic eczema. A persistent use of the sixth dilution of this remedy for a period of four weeks, twice daily, appeared to ameliorate all of the symptoms.

Digitalis-Purpura.—*Symptoms:* paleness of the face; general paleness of the skin. Anasarca. Emaciation of the body. Puffiness of the cheeks and lips. Dull, heavy pain in the head; difficulty of concentrating the mind; pressing or burning pains in the vertex or forehead; vertigo and trembling; drowsiness or lethargy; uneasy, unrefreshing sleep; sleep disturbed on account of frequent desire to urinate. Great weakness. White fur upon the tongue; nausea, vomiting; ptyalism; burning, or lancinating, or pressing, or spasmodic pains in the stomach; sense of great weakness in the stomach. Contractive, or pressing, or cutting, or cramp-like pains in the abdomen; ascitis; diarrhœic stools. Pain in the region of the kidneys as if bruised, when stooping or moving about. Frequent desire to urinate during the night; Excessive emission of urine day and night with great exhaustion; frequent emission of small quantities of watery urine; frequent and copious emission of watery urine. General dropsy with hypertrophy of the heart, and other organic affections of the heart. Dropsy of the chest. Ascitis. Ascitis and anasarca with organic affections of the heart. Rapid and difficult respiration on exercising. Asthmatic respiration on walking. Pulse frequent, or slow and weak. Involuntary twitchings of the fingers, thumbs, and other muscles of the body. Spasms. Convulsions.

Pathology.—See Digitalis, page 589, Vol. X., No. XL.

Clinical Remarks.—It is supposed to be especially useful when there is a tendency to waxy or fatty degeneration of the kidney. When the renal disease is associated with an organic affection of the heart, it is often an indispensible remedy. It is supposed to operate favorably in patients of scrofulous dyscrasias, or in those who have been enfeebled by injudicious allopathic medication.

Kali-Hydriodicum.—*Symptoms:* face pale and swollen; œdema of the eye-lids. General feelings of *malaise*. Frequent attacks of dullness and heaviness of the head. Restless, confused sleep. Burning pains in the pit of the stomach. Dry hacking cough, with rapid and oppressive breathing. Pleuritis. Bruised pain in the small of the back, particularly troublesome at night. Darting pains in the small of the back when sitting. Painful urging to urinate. Nightly urination. Frequent and copious emission of pale and watery urine. Discharge of mucus from the urethra. Diminution of the red globules of the blood. Emaciation.

Pathology.—See page 592, Vol. X., No. XL.

Clinical Remarks.—Especially appropriate in renal disorder consequent upon chronic rheumatism, or gout, or which appears to be connected with constitutional syphilis, mercurial cachexia, or scrofula. It is more frequently indicated in the stage of inflammatory exudation, than in the acute stage. Its action upon the exudated matter is such as to promote its absorption, and upon the obstructed tubuli, to restore their impaired function.

Kali-Nitricum.—*Symptoms:* drowsiness; heaviness, pressure, and dull pains in the head. Gastric and intestinal derangements; fœtid breath. Sudden swelling of the body, neck, and thighs. Oppressed breathing on ascending a stairs;

violent palpitation of the heart, and dyspnœa in the night, when lying on the back, or on the right side, or when moving about quickly. Pain in the small of the back in any position—constant, or in the morning on waking, or in the evening, or during the night, of a bruised, or pressing, or cramp-like, or burning character. Spasmodic, painless jerkings of the fingers and hands. Pulse below the natural standard. Frequent emission of a pale, turbid urine; increased urine with reddish deposits, or with a mucous sediment; urine of a specific gravity varying from 1030 to 1040.

Clinical Remarks.—This is certainly a valuable remedy against the distressing paroxysms of oppression of the chest, and difficulty of breathing, which so often afflict patients suffering under granulated kidney. But it does more than afford relief to the dyspnœa, and other symptoms arising from dropsical accumulations; as several physicians have observed that patients have, occasionally, been permanently benefitted after the use of the remedy. Its best effects will be derived from the medium and higher attenuations.

Mercurius-Iodatus.—*Symptoms:* face pale, waxen, and chlorotic in appearance. General anasarca. Paleness of the skin; dryness of the skin. Irritation and ulceration of the mucous membrane of the air-passages. Fœtid breath; putrid or coppery taste. Paroxysms of rapid and difficult breathing, and pleuritic pains in the chest. Nausea; vomiting; eructations; bilious diarrhœa; dysenteric discharges from the bowels. Scrofulous degenerations of the glandular system. Morbid excitability of the nervous system. Dull pains in the renal region. Urine either increased or diminished in quantity, and of high density.

Pathology.—See page 594, Vol. X., No. XL.

Clinical Remarks.—Owing to the paucity of pathogenetic observations, physicians have been obliged to employ this medicine more or less empyrically. In my own practice, I have regarded its pathogenesis as similar to that of the other mercurial preparations, and have prescribed it in accordance with this general resemblance. This mode is neither scientific nor accurate, but the good results I have observed from the remedy have induced me to persist in its use. That it exercises a special control over this condition of inflammatory exudation, modifying favorably both the morbid state of the kidneys themselves, and of the blood, and thus ameliorating, and in some instances curing the totality of the symptoms, we entertain no doubt. Indeed, we believe it to be equal, and, in some cases, superior in value to Arsenicum, Apis, or corrosive Mercury; and it is highly probable that future experimenters will confirm this opinion pathogenetically, pathologically, and therapeutically.

MERCURIUS-SUBLIMATUS CORROSIVUS.—*Symptams:* pale, waxen color of the skin of the entire body; paleness of the face; bluish paleness of the face; puffiness of the face; swelling of the head and face; anasarca of the face and limbs. Deranged digestion: nausea; vomiting, and burning pains in the stomach; fœtid breath. Shortness of breath; excessive dyspnœa; palpitation of the heart. Disposition to stupor; transitory soporous conditions; headache. Spasms in all the limbs. Urine increased in quantity, light, and albuminous; urine scanty, red, and albuminous; suppression of urine.

Pathology.—Kidneys enlarged, soft, and somewhat congested.

Clinical Remarks.—The marked specific action of this medicine upon the kidneys, its power in promoting absorption of exudated matters into the renal tissues, and its influence as a modifier of the morbid action peculiar to this stage of Bright's disease, render it a highly appropriate remedy. For the reasons adduced when alluding to this drug at page 539, in No. XL. we advise the employment of the medium attenuations.

MERCURIUS-SOLUBILIS.—*Symptoms:* general paleness of the face and of the skin; white, clay-colored face. Puffiness of the face. Dropsical swellings of the feet and legs. Drowsiness during the day, and sleeplessness at night. General weakness, languor, and lassitude. Tongue covered with a white fur, and somewhat swollen. Fœtid smell from the mouth; nausea increased by eating; bitter vomiting; great pain at the pit of the stomach, worse when pressed upon. Ascites. Shortness of breath, and dyspnœa, especially on ascending a stairs, or on walking. Bruised, or stitching pain in the small of the back. Spasmodic twitchings of the fingers and hands. Frequent desire to urinate, with scanty discharges; frequent urination during the night; urine turbid even while leaving the urethra, and depositing a sediment; flocculent discharges at the end of urination. Symptoms worse during the night.

Pathology.—The morbid renal alterations induced by this mercurial, are probably similar to those of Mercurius-sublimatus-corrosivus—enlargement, softening, and slight congestion.

Clinical Remarks.—Chiefly applicable in syphilitic, hepatic and diarrhœic or dysenteric complications; but quite secondary in importance to the two preparations last described.

Mercurius-Vivus. —*Symptoms:* face lead-colored and bloated. Ptyalism, exhaustion, delirium, convulsions and death. Bad digestion; putrid breath; nausea; vomiting; white, apthous-like fur upon the tongue, extending to its under side. Debility, languor, pains in the limbs, emaciation. Dull pains in the small of the back on walking, or lifting any thing.

Pathology.—Probably like Mercurius-corrosivus, it is capable of giving rise to enlargement, softening, and congestion of the kidneys; but there are not a sufficient number of facts at the present time to enable us to determine its precise pathological relations with these glands.

Clinical Remarks.—This medicine has been found useful in chronic albuminuria of children, complicated with marasmus and bowel affections, or with constitutional syphilis. In a few cases of this kind it has appeared to ameliorate the morbid group with more promptness and certainty than the other forms of mercury. If the little patients are emaciated, weak, languid, without appetite, and troubled with bilious or dysenteric discharges, it will be certain to afford relief.

Terebinthina.—*Symptoms:* face pale and sunken. Anasarca; ascites; general dropsy. Stupefaction, and deep sleep, confused and languid on waking, relieved by copious and rapid micturition. Increased menstruation. Dyspnœa; difficulty of breathing, with a sense of congestion of the lungs. Sensation of heaviness and pain in the kidneys; pain and sensation of increased warmth in the loins; pressure in the kidneys when sitting, and going off during motion; aching pains in the left kidney; drawing or burning pains in one or both kidneys, extending to the hips. Urine clear, watery, and profuse; enuresis; urine of a wine color, of the odor of violets, and depositing a thick, muddy, light-yellow sediment; urine depositing a slimy sediment twelve hours after micturition. General languor and loss of strength.

Pathology.—See page 596, Vol. X., No. XL.

Clinical Remarks.—Several distinguished homœopathic physicians have commended this medicine highly in both the first and second stages of Bright's kidney. We have found it most serviceable in those cases which appear to have been associated with chronic irritations at the neck of the bladder, strictures, and irritable bladder.

ARTICLE II.—*Clinical Lecture on Hepatization of the Lungs, with Hypertrophy of the Heart; Chronic Gastritis; Gastro-Enteritis: Chronic Aphonia; and Pertussis.* By R. LUDLAM, M.D., Professor of Physiology, Pathology, and Clinical Medicine in the Hahnemann Medical College, Chicago, Ill.

HEPATIZATION OF THE LEFT LUNG, WITH HYPERTROPHY OF THE HEART.

GENTLEMEN:—Alexander O——, a sailor, aged twenty-four, applies to us for relief from the following pectoral symptoms. Pain in the left chest, which is sharp and stitching, aggravated by sudden movement, a deep inspiration, or by lying with the head low. Sometimes this pain will disappear entirely, and then return again in consequence of some sudden start or exercise. Lies upon the back in preference, but can lie upon either side, providing he assumes the position slowly and deliberately, otherwise the pain recurs, accompanied by a violent paroxysm of coughing. The cough is fitful and capricious, coming on ordinarily only when he has just completed a meal, or after such excitement or exertion as suffices to produce the pain. It is not an unusual occurrence for him to cough for fifteen or twenty minutes directly after eating. The expectoration is scanty, whitish, and tenacious, and has a slightly sweetish, and sometimes a saltish taste. He never vomits after eating. His digestion is good, but the appetite rather poor; is dainty, and does not desire hearty food, as meats, &c.

Mr. O. says, that two years since he had a severe attack of acute pneumonia in the left lung, which confined him to his bed for about three weeks. He was very much reduced in flesh and strength, so that his friends and physician thought he would not probably recover. For this emaciation and debility he was ordered to take the Cod-liver oil, which he continued for some months with the most flattering results.

Some time after this period, however—say ten months ago—he contracted a cold from exposure upon the lake, which settled upon the left lung again, although it did not develop the same acute symptoms as before. Since then his health has been failing. A fortnight ago he was exposed to another lake-storm, which was the exciting cause of his present illness.

Physical exploration of his chest reveals the following characteristic evidences of disease therein. You will discover at a single glance that the left side of the chest is the largest. It is manifestly more prominent than the right one. Thus much for *inspection*. Let us proceed to test the integrity of the thoracic organs by *percussion*. You will notice, that the sounds elicited are, first, a flat sound upon slight percussion, commencing at the third rib, and extending downwards over the left lung. Second, a smart stroke upon the pleximeter, however, elicits a clear sound in parts of the lung remote from the heart and yet inferior to the third rib. Third, over the region of the heart, both a light and a more forcible stroke upon the instrument occasions a sound which is unmistakably flat. This flatness extends somewhat beyond the normal limits of what is technically denominated the superficial cardiac region. Instead of being bounded by the third rib and the fifth intercostal space with the apex of the organ, an inch to an inch and a half within the nipple, we find evidence that the heart is somewhat enlarged.

Now, gentlemen, you will notice that this point is evident from physical examination. The right auricle, and a portion of the right ventricle also, are found to the right of the sternum, as in health—an evidence that the whole viscus is not displayed laterally. But we find, that the left ventricle extends as far to the left as the nipple upon the fourth rib—a circumstance which leads us to infer that the heart is hypertrophied.

The only other sign elicited by percussion is a slight dullness at the inferior portion of the left lung, which is not decided enough to warrant us in diagnosing a pleuritic effusion.

Before we proceed to examine this patient by means of auscultation, let us explain the revelations thus far disclosed. In the healthy state of the thoracic organs percussion would yield a clear sound over the entire left chest, as over the right one, excepting only the superficial cardiac region, the normal, geographical limits of which I have already given you. This clearness of sound is due, as you have been taught, to the expansion of air within the parenchyma of the lungs; and, since the heart never contains air—at least since the time of the ancients—it can not be resonant on percussion. Whenever a solid body or tissue intervenes between the thoracic walls and the free air-cells of the lungs, we shall have a dullness on percussion which will be proportioned to the thickness and solidity of the body interposed. If the dullness were evident only on slight percussion, and a more forcible blow should elicit the normal resonance, the legitimate conclusion would be, that the solidification was confined to a thin and superficial stratum of lung or pleural tissue intervening. On the other had, if a very slight blow were to reveal a resonance over a greater portion of the cardiac region, we should infer that the portion of the lung lying next the parietes of the chest, adjacent to the pleura, or between the pericardium and the parietes of the thorax, was in a healthy state. Besides, if the boundary of the dullness peculiar to the superficial cardiac region, were extended, the inference would be that the heart itself were enlarged. Thus much for the revelations disclosed by this kind of physical exploration.

We now proceed to learn what auscultation will teach of the nature and extent of the disease presented to our notice. Upon applying my ear to the left chest, I at once detect the absence of the healthy respiratory murmur, which is not to be heard at all below the second intercostal space. When the patient takes a deep inspiration, I detect a hoarse bronchial sound, and you will remark that such an effort on his part is followed by the inevitable cough. The voice of the patient sounds very near and clear to the ear of the auscultator. This constitutes what is known as broncophony,—the phenomena being due to the fact, that the solidified parenchyma makes an excellent medium for the transmission of sound. It is as if the ear were placed directly over the bronchial tube itself.

The heart-sounds, with the exception of being a little indistinct, are in every way normal. There are no regurgitant murmurs, which would indicate a defective closure of the valves guarding the various circulatory outlets. The sounds are muffled in tone, while the impulse of the organ against the walls of the chest is unusually forcible. The patient informs us, that he is occasionally troubled with a violent palpitation of the heart, and that his pulse is habitually slow, excepting when laboring under some especial excitement.

In this case, gentlemen, you will remark how aptly these two species of physical inquiry coincide in the results obtained. Percussion led us to infer either that there must be some solidification of the lungs, or that effusion into the pleura had taken place to such an extent as to prevent a clear and healthy resonance of the thorax. Auscultation supports the deduction, while the absence of the vesicular murmur, with bronchial respiration and broncophony, enables us to diagnose hepatization with as much confidence as if the lesion were actually seen. Of course, if the spongy air-cells are impervious to air, the normal murmur occasioned by its ingress and egress must cease. And because the solidified lung is a good conductor of sound, there will be an abnormal loudness of the blowing sounds peculiar to bronchial respiration; and, furthermore, the resonance of the voice in passing through such a medium would convey to the ear an exaggerated impression of its strength and volume,—broncophony. If there were pleuritic complication there would be dullness or flatness on percussion, due to the presence of an effused liquid, which sounds would be greatly modified by the posture of the patient, being most marked when he was lying down, and limited by gravity to the base of the chest when in the erect position. This sign of chronic pleurisy has been repeatedly illustrated in the Clinique during the present session. Auscultation detects an inflammation of the pleura when there is heard a friction sound as of two moist surfaces rubbing together, and a goat-like bleating (œgophony), which is altogether different in regard to pitch and quality from both bronchial respiration and broncophony. A writer in the *Revue Médicale* gives the following as a method of detecting pleural dropsy when the fluid has considerably diminished: Put one hand upon the affected side of the chest—the patient sitting up in bed; then percuss the ribs with the other hand. This will give rise to a fluctuation, which will be easily perceived by the hand placed over the affected side.

But the right lung, although not diseased in this patient's case, presents some points of physiological interest. As a matter of course where the whole duty of respiration devolves upon one of these twin organs, we should expect a corresponding modification of healthy physical sounds in that organ. Here we find that the respiratory murmur in the right chest is *puerile* or exaggerated, a state of things chargeable directly to its own increased functional labor, and indirectly to some obstruction of aëration in the left lung. The compensating relations of the organism, whereby one viscus may temporarily assume the duties of another in addition to its own, as with each of the dual organs, the eye, the ear, the kidneys, the lungs, is a skilful provision against the damaging consequences of functional disorder.

I have dwelt at considerable length upon the physical exploration of this patient's chest because I conceive such modes of investigation in all kindred diseases of incalculable service to the profession. Organography, as Piorry styled it, has enabled us to determine the exact nature and extent of lesion in the case before us. Considered solely as a means of satisfactorily settling the diagnosis of a difficult and obscure disease, physical exploration is a something which the earnest physician of our day will not and cannot afford to dispense with. Nature never discloses voluntarily the secret springs of disordered action. We must question and cross-question her if we would approximate a correct knowledge of pathological minutiæ. The physician who enters the sick-chamber with the air of a mountebank, feels the pulse, looks at the tongue, makes a few sage or common-place inquiries and retires, has not taken sufficient time or pains either to ascertain or to determine the nature of the disorder which he is expected to remedy. There are those who claim an intuitional tact by which they can discern and unravel the intricacies of these pectoral affections, but the facts of the cases which are worth knowing are but faintly whispered into the ear of the careful and diligent seeker after truth. It is as if a supplementary sense had been added to our natural faculties; as if by this a kind Providence had intended that we should listen and learn something to our profit. True we are not pointed directly to this or that remedy for the various abnormal murmurs, for there is no recorded pathogenesy of any drug which invariably causes or cures this or that series of pathological sounds, and never may be, but have we not under these circumstances the means of knowing what is the lesion which we are required to remedy, and of giving our patients the benefit of such knowledge? I have heard of physicians whose dislike to this species of inquiry was so great that they had actually convinced themselves that the revelations of physical diagnosis were incompatable with and antagonistic to those of an obscure and bewildering symptomatology. There could be no greater mistake. We would have you versed in all the collateral aids to our calling which are calculated to throw a grateful side-light upon the dusky haunts of disease and its remedy. And, having acquired this information, you should use it in your practice as men possessed of a conscientious desire to excel in your profession.

Another remark and we shall proceed to the treatment. You will occasionally be called upon to treat cases in which there is the best evidence of an impervious condition of tissue in a portion or the whole of one or both lungs. If the defect is congenital, your diagnosis would recognize a case of *atelectasis pulmonum*, an affection most common among young children and infants. But in the adult, a collapse of the lung which is not secondary upon pneumonia, is sometimes dependent upon spinal irritation. This constitutes a species of paralysis of the organ, and you should remember that certain obscure cases of lung complaint are inexplicable and incurable until you have recognized the actual condition of affairs in regard to the supply and regulation of nerve-force from the spinal centre. Let me recommend you always to ascertain if there is any spinal tenderness which would point at once to the seat of the lesion.

TREATMENT.—Bryonia-alba 3, and Phosphorus 3, alternately once in three hours. Bryonia is a useful remedy in parenchymatous pneumonia, whether acute or chronic. Its happy effect in relieving the air-cells of the embarassment which occurs in such cases has been long ago and frequently demonstrated. Its range of curative action is by no means limited to affections involving the pleura, although there can be no question of its efficacy in these as in almost every variety of serous inflammation. In cases of pleuro-pneumonia, a disease which has prevailed epidemically and with great fatality, in some parts of our country of late, it seems almost to deserve to rank as a specific.

The peculiar character of the cough,—fitful and worse directly upon eating, with the sharp stitching pains aggravated by motion, indicate Bryonia most decidedly. And so of the expectoration, which as you will remember, is scanty, whitish and tenacious, sometimes saccharine and again saltish in taste. Besides all these, the anorexia, which, *en passant*, is a significant symptom, calls for Bryonia also. We can scarcely err in recommending Phosphorus in pneumonia occurring the second time in the same lobe of the lung. There is no remedy more appropriate to a susceptibility to repeated attacks of this sort, whether that susceptibility be congenital or acquired. Its sphere of action in such cases seems to consist in promoting a resolution of the hepatized tissue, to aid the destructive metamorphosis in the removal of the half-organized material contained in the spongy texture of the lung. After this process is once established, and the *debris* begins to be expelled along the respiratory outlets, we shall find the Antimonium-tart., of more direct and especial service. In the atelectasis, the latter may almost be classed as a specific. Nux-vomica or Ignatia, with or without the Hypericum-perf. or the Belladonna, would be more proper in case of pulmonary paralysis from spinal irritation.

This patient should be allowed a nourishing diet. We must minister as efficiently as possible to the chemico-physiological necessities of his organism. It will not do to permit this man's animal force to run low, or he may never rally. His system needs an available pabulum, one which shall more than counterbalance the drain upon its assimilative resources. It will be well for you, gentlemen, always, in kindred complaints, to recognize the beneficent agency of cell-therapeutics in effecting a cure. Mr. O. should be fed upon nourishing soups, and even upon a rare beef-steak occasionally, with a miscellaneous diet of bread and milk, &c. Once secure his organism an available plasma, and lesions affecting the integrity of the pulmonary structures will have disappeared,—providing always your therapeutical agencies are equally well chosen and effective.

Chronic-Gastritis.—Cardialgia.—This patient, John L——, Irish, aged twenty-five years, of a bilious temperament, with a strong muscular development, a laborer by occupation, complains of eruptions which bespeak a chronic inflammation of one or more of the coats of the stomach. Has been ill for three months. Is tortured with a pain in the epigastric region, which pain is sometimes acute, but for the most part dull, and accompanied with a sense of pressure, or swelling, as he says. The suffering is increased by the presence of food or of drinks in the gastric cavity. Occasionally after eating, although never so little, he experiences such acute suffering as would imply a neuralgia of the stomach. Has anorexia, with disgust of food, and from habit has learned to abstain almost entirely from eating. As a consequence, you will observe that he has become very weak and emaciate. Is scarcely able to crawl about. The tongue is coated with a yellowish, bilious-looking fur, which of itself is enough to impair his taste. The conjunctiva and complexion are slightly icterode, and his spirits at zero; both and all of which symptoms indicate some biliary as well as gastric disorder. There is, however, none of that tenderness upon pressure over the region of the liver, neither that increased extent of dullness on percussion which would demonstrate that this organ was inflamed or enlarged. The sympathetic pains in the shoulder, and the sense of increased weight when lying upon the opposite side, so charasteristic of hepatitis, are also absent. There are no febrile symptoms. At times the urine is dark, scanty in amount, of the color of brandy, then again it is limpid and more abundant.

In so far as it seems possible to diagnose this difficulty, there appears to be little or no disease of the enteric mucous membrane. His bowels are regular, although rather inclined to constipation, but he never has the occasional outbreaks of diarrhœa which as I have before said, are so characteristic of enteritis, whether acute or chronic. There is no tenderness upon pressure, neither tympanitis upon percussion over the colon in any portion of its extent. The trouble is limited to the stomach, the chief function impaired being that of gastric digestion. This is in point of fact a form of dyspepsia, depending doubtless upon a hyperæmœsthesia, or it may be an ulceration or a softening of the gastric mucous membrane.

I have had frequent occasion in the clinique to illustrate the physiology and pathology of digestion. That portion of this function which is performed in the human stomach and through its agency, is by far the more important among the complicated processes which constitute digestion proper. This organ is designed to act upon and dissolve by means of its peculiar solvent, the *succus gastricus*, the albuminous or proteinaceous elements of the food, those elements which comprise the great bulk of the aliments taken into the body. The gastric mucous membrane is a delicate structure having a soft velvety look and feel, is very vascular, as you have witnessed in the field of the microscope, and in the state of fasting is thrown into rugæ or longitudinal folds which are capable of considerable extension. Its physiological anatomy reveals an infinite number of granular tubes whose length, passing as they do down to the muscular coat, constitutes the thickness of the membrane, and whose orifices open into the reticulated cavities upon the epithelial surface of the stomach. These tubes vary in size from $\frac{1}{3000}$ to the $\frac{1}{6000}$ of an inch in diameter, and are from the $\frac{1}{60}$ to the $\frac{1}{12}$ ot an inch in length. Their inferior two-thirds are lined with finely granular nucleated cells, true peptic glands, whose office it is to elaborate the gastric juice from the blood.

This will give you some idea of the delicacy of structure involved in this man's case. Dr. Beaumont is authority for the fact, that during fasting the sole contents of the stomach consist of a little viscid mucus, which is but slightly acidulated. The gastric juice, therefore, is not poured out by the aforesaid tubes unless they are stimulated by the presence of food. Were it otherwise the coats of the stomach itself might perhaps be dissolved, as sometimes happens after death during gestation, by this powerful solvent for animalized tissues. I have already hinted, that the integrity of the coats of the stomach might be damaged by what are termed the "results" of inflammation,—ulceration and softening, technically called gastromalacia. Here is a morbid specimen, presented the museum of the College by my friend, Dr. E. M. Hale, in which the organ has been ruptured at its cardiac extremity in consequence of protracted disease.

The pathology of the present case needs to be studied carefully, or our remedies may be productive of mischief, because we have to deal with a disorder which assumes a thousand forms, is insidious in its approach, and limitless in its influence upon the organism. The minute anatomy of the gastric mucous membrane ranks it in the compound order. Its great vascularity implies a sensitiveness to the presence of irritants, which is peculiar to all highly vitalized structures. Hence its liability to one or another grade of inflammatory action. The texture organically ill, it would be accompanied by a disorder in the function to which it is appropriated. Indigestion is a never-failing result of gastritis. It may be acute or chronic, according as the cause is more or less violent or persistent in its action.

The anorexia may be easily and satisfactorily explained. A continuous afflux of blood to the lining membrane of the stomach, with the more indirect consequences of the inflammatory process, would be almost certain so to affect the secretory surfaces as greatly to interfere with the production of the gastric juice. The elaboration of the pepsin or gasterase, the organic ferment so essential in aid of digestion, would also be interrupted. Nothing could more effectually interfere with the gastric function. Under these circumstances the food, if taken, might lie in the viscus for twenty-four hours more or less, without being acted upon or dissolved, meanwhile giving rise to sufferings akin to those which our patient experiences. Hence we interpret the loss of appetite to be a wise provision of nature, designed to prevent the introduction of all irritants to the seat of disease. This man has no desire to eat, for the simple reason that he realizes—and so also do the sentient nerves of his stomach—that, if forced upon the organ, the best of food could only prove injurious. And the hint is worth something to the observant physician. It teaches him most pointedly the necessity of desisting from cramming the stomach beyond its normal desires, and from overtasking its chymifying ability.

Another cause of the disinclination to food is found in the regurgitation of a small quantity of bile into the gastric cavity. This product of the liver, as you will recollect, is strongly alkaline in reaction, while the gastric juice is as decidedly acid. Now, one principal condition that the latter shall act in aid of digestion is, that its acidity be not impaired. Whatever serves to render the digestive mass contained in the stomach in any measure alkaline, or indeed merely neutralizes its acidity, will materially derange the whole function. And this is precisely what takes place when the bile is commingled with the gastric juice. Hence the excessive perturbation and irritability of the stomach and neighboring organs in bilious disorders. If the acidity of the gastric juice be neutralized by alkali, its solvent power is lost. From this cause alone there might easily spring a great and almost unconquerable aversion to food—a complete anorexia.

The exciting cause of this attack of gastritis, now passed into the chronic form, is found in the intemperate habits to which our patient has been addicted. Ardent spirits, as men of his class consume them, may give rise to an inflammation of this sort in one of two ways—viz., *directly* or *indirectly*. If the vile compounds are directly injurious, it will be because of acting upon the vascular sympathies of the mucous surface to which they are applied, increasing the afflux of blood to the part, and thus undermining the healthy nutrition of this especial tissue, and also inducing a certain derangement of secerning function in the gastric glands themselves. Indirectly they do harm by rendering the appetite so fitful and capricious as to aim a most effective blow at the continued integrity of what might be termed the primary nutritive processes. Your toper never eats either regularly or rationally.

Treatment.—If you will refer to the recorded effects of Nux-vomica, and study its pathogenesy in detail, as bearing upon gastric disorders similar to that of which this patient complains, you will conclude with myself, that it is well indicated in the present case. In addition to its being the similimum for the more prominent symptoms, it is happily adapted to antidote the ill effects of an intemperate use of intoxicating drinks, to which this patient was formerly addicted. He tells me, that his stomach was once as strong and his digestion and appetite as good as that of any of his fellows; but that, after the formation of his intemperate habits, there was a very marked change in these respects. This he discovered for himself, and a reformation followed, which we may hope will prove radical and thorough.

If the symptoms were more acute, and characterized by a fiery red tongue, with great thirst, and burning in the pit of the stomach, we should prescribe Arsenicum. Let him take Nux-vomica, 3, a dose once in three hours.

The diet should consist alone of starchy or farinaceous articles. In such affections it is always desirable to select an aliment which can be digested and absorbed into the general circulation without any very considerable tax upon the gastric mucous membrane. The albumenoid solids, such as the various meats, if dissolved at all, undergo this change in the stomach, consequently their presence could be productive only of mischief. Such articles as corn-starch or farina, made into a thin gruel, or a little pulpy soft-boiled rice, would be tolerated by the stomach, easily disposed of by the capillaries and lacteals, and most kindly accepted as a contribution to the relief of the extravagant tissue metamorphosis now going on.

A drink of plain rice-water is sometimes grateful in such cases, and may be productive of good by giving its absorbents something to do, while at the same time it affords some slight aid toward necessary structural repairs. These instructions being followed out, and the medicine faithfully taken, I am confident our patient will tell an encouraging story when he comes to report upon the results of our prescription.

Acting upon the hint afforded us by the alkalinity of the gastric juice, and its consequences in the arrest of the appetite, and indirectly also of stomach digestion itself, you may sometimes relieve an intractable vomiting, or even a loathing of food by means of a dilute vegetable acid supplied with the drinks allowed the patient. A weak lemonade, or orangeade, a bit of orange, baked apple, or a few ripe grapes, will meet the indication, and frequently contribute greatly to the relief of suffering, and besides being generally grateful to the invalid, sometimes work wonders in a remedial way.

GASTRO-ENTERITIS FROM IMPROPER FOOD IN A CHILD TEN WEEKS OLD.

We have had this little patient come next in order, because his disease resembles in some respects that for which we have just prescribed. The brief history of this case—for the child is only ten weeks old—is as follows: Obliged to suffer the martyrdom incident to a mammary abscess, the mother was compelled to wean her child at the end of the third week from its birth. The little fellow had been thriving finely before that time, but soon commenced to decline upon a change of diet. The first food given in an artificial way was the cow's milk—the precaution being taken, that the milk which he drank should always come from one cow, and not be a mixture from several, which, if given, would be sure to occasion mischief. But, notwithstanding this care, he wasted rapidly; his bowels and stomach became greatly disordered, so that in brief the child bade fair to die. He had severe colicky pains immediately upon being fed, which pains were not relieved until after vomiting the ingesta. The habit had already become second nature with it. He would eat greedily, and then, seized with the pain, almost immediately reject what he had taken. Occasionally, however, he would experience severe paroxysms of colicky pains, which seemed to bear no relation, in point of time at least, to the taking of his meals. He would awake in the night with the most intense suffering, and scream for hours together. These are the symptoms which persist until the present time, although the little fellow has been for some six weeks under the charge of a professional friend of my own, belonging to another school o medical practice.

Within a day or two the mother says its bowels are mor disordered than before. It has always been subject to a diarrhœa, but the stools were not so frequent as now until th night before the last, when she counted thirty-six dejection from tea to breakfast time. Its little stomach is become so very irritable as scarcely to be able to retain the least particle of food or of medicine—a state of things we sometimes meet with, in which nature seems to be utterly disgusted with the advances of art, and will have nothing whatever to do with it.

Let us institute a little farther inquiry, in order, if possible, to ascertain the reason why the diet chosen disagrees so decidedly with our patient. You will bear in mind, that this infirmity of digestion did not show itself while it was nursed from the mother's breast. It is important not to forget this fact, since we desire always to determine whether the function was properly performed in the beginning. "Well, Madam, you have said your child was but ten weeks old, and that for some seven weeks you have fed it upon cow's milk?" "Yes, Sir." "The milk was the product of one cow,—you are certain of it?" "Yes, Sir." "Was it a new milch cow from which this milk was procured?" "Oh no, Sir." "Do you know how long since she had been?" "Not for a very long time, I am sure, Sir." "Her calf would have been older than your child, had it lived?" "Indeed it would, Sir."

Here, gentlemen, we have it. Because of the fallowness of the animal—she not having borne any young nobody knows when, the milk is too old for our little patient. He is no more able to digest it than he would be to digest a strong beef-steak. It is no marvel that he is ill. All the medicine in the world could not cure him under these circumstances. It were useless to prescribe remedies for symptoms so manifestly the result of a direct cause, while the cause is still in operation. We must first suit the aliment to the child's capacity for digestion. The milk which has been given him is too old, too full of casein, too rich, too strong for the little fellow altogether. He should have milk from a new milch cow, if possible to obtain it, or better still, from a good healthy wet nurse. But appropriate aliments are not so readily at command in the city as in the country, neither by the poorer classes who come to the Clinique, as by our more wealthy citizens. We shall have more to say upon this point presently.

The case illustrates the importance of a practical familiarity with dietetics, more especially as applied to the earlier stages of human existence. The most appropriate nutriment for the newly-born child is the mother's milk, and I hereby caution you with regard to its voluntary withdrawal. Many physicians will order the child to be taken from the breast on the most trivial pretext, as if art could be substituted for nature with the most perfect impunity. A slight stomatitis, sore nipples, a scrofulous cachexia, or a squeamishness on the part of some silly parent lest the sharing of her life-forces with her offspring might possibly detract from her own comeliness of form or of figure, too frequently suffices to bring the fatal order from "head-quarters," that "the child must be brought up on the bottle." In thousands of examples such a procedure is about equivalent to turning them over to the tender mercies of the undertaker. I charge you, gentlemen, never to be guilty of this species of mal-practice when it is possible to avoid it.

But there are certain cases in which the child may and must be reared artificially. Of all the articles employed as a substitute for the mother's milk, that from the cow has come into most general use. It is absolutely necessary, however, that, in placing our little patients upon this diet, the new-born babe should be fed with new milk. You will never be justified in sanctioning such a discrepancy in the age of the product and of the child as has been permitted in the case before us; otherwise the most serious consequences would be certain to result. The reason is a simple and satisfactory one. The chemical constitution of the milk afforded by the parent of every species is found to differ with the age of the offspring. In this way it is wisely adapted to supply the growing necessities of the young organism during the different stages of development through which it approaches maturity. Thus the nitrogenized element of the milk—the casein—in case of the cow whose young must commence locomotion at an earlier date than with the human offspring, is found in excess over that which is contained in the milk furnished the latter. The milk of the human female will need to be less abundant in histogenetic elements, for the reason that some weeks or months elapse before the child lives more than a mere passive existence, and hence its nutritive wants are easily satisfied with a weaker and more delicate solution of this same principle.

In some cases it is better to take good rich cream, and, adding an equal quantity of water, give it to the child for a regular diet, than to feed it with milk alone. To this mixture a little finely pulverized Boston cracker may be added. In case the child's stomach is excessively irritable, the groats will sometimes be tolerated. The only ill effect which I have remarked from their use has been the production of a diuresis which, in some cases, will be almost as marked as in genuine diabetes. Where this effect follows, such a drain upon the general system must of course be remedied, and you would be obliged to change the diet. Another substitute for mother's milk, which has answered very well in some instances, is the "consolidated milk" of the shops. This is rich cow's milk, from which the watery parts have been driven off by evaporation—dessicated dairy milk.

But, to conclude upon this subject—for there are other patients awaiting treatment in the next room—let me urge upon you once more the absolute necessity in most cases, where it is at all possible, and the product is not too depraved in itself, to keep the child at the breast of the mother, as a source of nutriment which is more exactly adapted to its individual necessities than anything which can be artificially supplied. Thousands of children die annually from improper management in this regard. From this fact also grows the inference, that the milk of the human female would be the better substitute, should the mother fail to nurse her offspring. Wet nurses are an abominable nuisance in the family sometimes, and yet we cannot deny them a prominent place among the benefactors of the race. The most talented chemist or pharmaceutist would find it impossible to compound a draught which should be at once so grateful and so beneficent to the little innocent as is elaborated in the mammary gland of the human mother.

You will anticipate the treatment. Each and all of the more prominent symptoms—the vomiting, the colic, the diarrhœa, the rapid emaciation—are chargeable to a gastro-enteric irritation, which has its source in the taking of an indigestible aliment. The first indication is therefore, to remove the cause of all this mischief,—to procure a diet which shall be digestible, nutritious, and harmless to the intestinal mucous membrane. Such an article we have in the groats, which we hereby recommend for this patient. By-and-by he will need a more vigorous diet, but for the present, it is quite probable they will be tolerated when other and more hearty food would not.

We shall order the little fellow Mercurius-solubilis, 3d decimal trituration, of which a small powder, say of two grains, should be given dry upon the tongue once in three hours. You will remark, that I am careful to specify as to the manner of its being taken—dry upon the tongue. This remedy seems especially adapted to the relief of an intestinal irritation which deranges the whole process of digestion, as in the case before us. Where such affections have assumed the chronic form, and are become the more serious from having involved the sub-mucous coat of the bowel, and especially if accompanied by an intractable vomiting, the Mercurius is capable of effecting better results than almost any other remedy. I have sometimes seen such powders of Merc. given as but just now recommended, to the entire relief of an emesis which could not be stopped in any other manner.

Fresh air and light, both of which, we are told, have been in a great measure denied him, will prove valuable auxiliaries toward a cure.

CHRONIC APHONIA WITH SCROFULOUS SWELLING OF THE CERVICAL GLANDS.

Most of you, gentlemen, will not fail to recognize this patient as having been prescribed for on a former occasion.* She had been ill from aphonia, with a peculiar tumefaction of the glands about the neck, for more than four months when first she sought our professional advice. "How do you feel to-day, my good woman?" "Better, Sir, I thank you." "Is your voice improved?" "Oh yes, Sir, very much indeed." "Are you able to speak quite loudly and distinctly at times?" "Sometimes, Sir, I can talk as good as anybody." "And then will your voice leave you almost entirely, as it used to?" "No, Sir, I can always talk better now than I did when I came here the first time."

These intelligent answers to my inquiries will suffice to give you a correct idea of the improvement in the volume and clearness of her voice. Her convalescence confirms the correctness of our diagnosis. You will remember, that I referred to the metastasis of the scrofulous inflammation from the cervical glands to the larynx as the more probable source of the difficulty, and that the treatment ordered was based alike upon a pathological and a pathogenetic view of the case. The remedies have been Silicea, 3, and Phosphorus, 3, given alternately once in four hours. We shall continue the same, but order them to be taken once in six, instead of every four hours.

It is a good rule to "let well enough alone," and when you have determined upon a remedy or remedies which seem adapted to the case and are gradually working an improvement in the symptoms, not to be so fickle as to change it too frequently. As physicians, you should learn to exercise a little firmness in this regard in the very outset of your career, or you will soon find yourselves beset with difficulties which are by no means of an insignificant nature.

PERTUSSIS.—TUSSIS CONVULSIVA.

This patient, eleven months old, has the whooping cough, and I see is just about to give you a specimen of one of his paroxysms. You will mark the peculiarities of the sonorous inspiration, or whoop, as it is termed. (*Coughs badly for some moments.*)

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* For detail of symptoms and treatment, see Vol. X., page 317, of this JOURNAL.

"An ill wind which blows nobody good!" The little fellow has had the disease for a fortnight. The paroxysms of coughing are not very frequent, occurring for the most part in the morning and evening, but sometimes also in the night. The cough was at first dry and hard, it being impossible for him to detach the least mucus, no matter how well disposed. At this period the tightness was evidently a source of pain, since the child cried violently with each recurrence of the fit. He did not, however, grow very red in the face, neither was the conjunctiva congested, as it sometimes is under like circumstances. He had little or no fever, and showed no signs of digestive or other functional disorder. You are perhaps aware that one very great source of trouble in the management of pectoral diseases among infants and children under four or five years of age arises from the fact, that they have no idea, and cannot be taught how to expectorate: The respiratory passages may be never so full of mucus, but they breathe on mechanically, permitting them to become more and more occluded, without making the least possible effort to dislodge it. If relieved of embarrassment at all, it will be through occasional fits of vomiting. Their persistent efforts in swallowing or choking down the mucus, and in suppressing a paroxysm of the cough result in great perturbation of the breathing process, and by-and-by in more or less of intestinal disorder from the non-digestibility of matters swallowed.

Despite the seeming violence of the symptoms, this is not a dangerous disease. Patients rarely die of it, unless in complication with other and secondary affections, as, for example, convulsions or pneumonia. At certain seasons during the year, more especially during the spring months, it is liable to be accompanied by, or to degenerate into lobular pneumonia, which, among young children, is always to be regarded as a serious malady.

Treatment.—We shall begin the treatment of this case with the Cuprum-metallicum, 3. To write out the prescription in full, it would read thus:

℞. Cuprum-metallicum, 3, grs. viij.
Aqua pura, ... f. ℥ iv.

Mix, and give a teaspoonful once in three hours.

Take it all in all, we have more confidence in the Cuprum as a remedy for pertussis than in any other agent we possess. Among the best of those that remain, are Atropine, Bell., Corall.-rub., Drosera, and the Mephitis-putorius. As a rule it is questionable if the duration of the disease can be in any manner, or by any means in our power, cut short. If the child is attacked with pertussis in the late autumn, the probabilities are that he will not recover entirely before the early spring. He may do so; but that any abortive plan of treatment yet recommended would be likely to bring about such a desired result, is more than we can honestly claim for it. If seized in the winter or the early spring, the old rule is, that by the first day of May the child will begin to convalesce, and the trouble soon disappear. The discovery of a specific for the whooping-cough is rendered impossible, for the reason that epidemic modifications render one remedy more successful one season, and another in another. Last year I cured a majority of my cases with Atropine, 3, but this year it is not possible to effect any decidedly curative result in this disease without the Cuprum. In another epidemic the Corallia-rubrum might succeed better than either of the foregoing.

Article III.—*Euphorbia-corollata. An Inquiry into its Pathogenetic and Therapeutic Action.* By Edwin M. Hale, M.D., of Jonesville, Mich.

This plant is as yet but rarely used in Allopathic or Homœopathic practice, but our eclectic colleagues have made extensive trials with it in disease, for many years, and thus indirectly given us some valuable pathogenetic hints. But, much as it is used by that school, their literature contains but little in reference to its therapeutic power. With many physicians of my acquaintance it supercedes the use of Lobelia or Ipecac., as an emetic or diaphoretic: and is substituted for the Podophyllum, Jalap, &c., as an active cathartic.

But in the doses in which it is administered, it is often productive of unpleasant and even dangerous symptoms, and capable of doing much injury to the gastric mucous membrane.

I have never administered it in disease, save in a strictly homœopathic manner, but I have experimented upon myself, testing the effects of the dried root in grain doses; and I have often had opportunities of observing its immediate and remote effects upon the persons of the patients of eclectics. The Euphorbia-cor. belongs to the Nat. Ord. Euphorbiaceæ, with the Euphorbia-off., of Hahnemann; and the Euphorbia-ipecacuanha of American writers. There are two other varieties, the Euphor-maculata, and E.-hypericifolia, but as their effects are quite different from the former, they cannot properly belong to the same group of remedial agents.

The E.-off., of which we have a proving by Hahnemann himself, is one of the most irritating and powerful agents known, in its action upon the skin and gastric mucous membrane. It is said to have an irritant effect upon the brain. It is seldom if ever used internally by the old school, because of its severity of action. Its principal use is externally as a rubefacient or vesicant. Hahnemann, although he does not give a picture of its general effects upon the skin, mentions its causing erysipelas of the face of a severe character. But its real sphere of action is more like that of Croton-tiglium, than any other drug. It causes a most intense inflammatory eczema, which often puts on an erysipelatous appearance.

In Hahnemann's proving, sufficient prominence is not given to its effects upon the stomach and intestines, although he gives a few of the symptoms, indicative of its peculiar action in that direction. The E.-Ipecacuanha has been used by American botanic physicians, and by the country people in domestic practice, for many years, as a prompt and easy emetic. It is the mildest of this class, causing free and copious emesis and catharsis, with little pain, except when given in large doses. Yet the milky juice of *this* variety will, when applied to the skin, produce vesication and eczematous inflammation. It is used by the eclectics as an emetic, diaphoretic, expectorant, and epispastic. They claim that it is superior to Elaterium as a hyragogue in dropsy: that it will bring on the menstrual discharge when given in cathartic doses; and is useful in hepatic torpor, bilious colic, &c.

Probably it is not specifically indicated in any of these diseases, but may prove homœopathic to some form of eczema, gastric disorder, with irritation of the mucous coat of the stomach and bowels. But it is the Euphorbia-corollata which I prefer to consider as being the more powerful remedy, and perhaps more capable of attaining a position in our Materia Medica, by the side of the E.-off.

This plant is incorrectly termed by Wood, King, and other writers as the "long flowering spurge." In their botanical descriptions, the peculiarities of the different varieties are mingled together, so that I can nowhere find a correct description of the E.-Corollata. It grows in waste and sandy places, all over Canada and the Northern States, flowering in July and August. It is *not* a "tall and erect" plant, but looks not unlike the *buckwheat;* several tortuous stems rising from a small yellowish root, which when broken yields a milky juice which irritates the skin when applied to it for a few minutes, creating a pustular eruption. The stalk contains the same juice, but of less strength. The bark of the root is the officinal part, and together with the whole root, *inodorous and tasteless!* Its virtues are imparted to water and alcohol. The tincture of the powdered bark, or the bark itself triturated with sugar of milk, after the usual manner, is the best method of preparation. Being destitute of taste, it is easily given to children, should it be necessary to use the lower triturations. Pellets saturated with the mother tincture; the first trituration or the strong tincture, or powdered bark, should be used in provings.

Its action on the system is intense and peculiar. It is called by the country people by the expressive name of *Go-quick*, referring to its quick and prompt action. I am indebted to Dr. A. R. Brown, of Litchfield, Mich. for many interesting facts relating to its action. It is considered by those who use it, as the most powerful "revulsive agent" in their Materia Medica, in all cases of local congestion, especially of the lungs and head; also in inflammation of the pleura, lungs, and liver, and is used as a substitute for bleeding and Calomel. Its admirers allege that it will certainly *arrest* the progress of the above affections in a few hours, and break up all simple fevers. This is of course erroneous, but it reminds one of the Helleborine of the ancients, so graphically described by Hahnemann. In fact no drug with which I am acquainted so much resembles the Veratrum-album. It will be seen that its near analogues are also Jatropha, Elaterium, Croton-tig. Arsenicum, Tartar-emetic, Verat.-viride; and will undoubtedly prove as useful in practice.

Dr. Brown, who has repeatedly tested the pure effects of the root upon his own person, thus describes the action. After taking the dose (twenty-five grains of the powdered root) and while in good health; no effects were noticed for about one hour and a half, when suddenly, with no premonitory symptoms of pain, a distressing sense of *deathly* nausea set in, accompanied in a few minutes by faintness; then sudden and powerful vomiting of, *first* the food, &c , in the stomach, then of large quantities of water mixed with mucous, then clear fluid like rice-water. In less than a minute after the vomiting commenced, great commotion in the bowels, followed immediately by copious watery evacuations set in. This simultaneous vomiting and diarrhœa continued for nearly an hour, at short intervals, or intermissions; all the while accompanied by great anxiety, a death-like sense of faintness and exhaustion; cool skin—covered with beaded sweat; cold hands, feet, and nose, and great weakness. In about two or three hours all these symptoms passed away, leaving only weakness as from hunger, no pain or distress, only a peculiar languor. During the height of its action the pulse sank to forty. After taking fifty grains the effects were much more intense, but lasted only a little longer. It resembled more nearly a severe attack of sea-sickness, or cholera morbus, than anything the doctor could imagine. Taken in doses of two or three grains every two or three hours, it caused languor, perspiration, and softness of the pulse.

King, (Dispensatory), says, fifteen or twenty grains of the powdered root will excite emesis, rarely occasioning pain or spasms, and giving rise to very little previous nausea or giddiness. Four grains given every three hours, will act as a diaphoretic. When given in large doses it is apt to induce inflammation of the mucous coat of the stomach and bowels, with hypercatharsis. It causes distressing nausea with prostration."

Wood, (Therapeutics, Vol. 11., p. 442). It is not like Ipecacuanha, safe in over doses, but when taken too largely acts with great harshness, causing much nausea, violent vomiting, hypercatharsis, and symptoms of general prostration. Other medical writers speak of it in much the same manner; but the most extended notice of its virtues which has yet appeared, is from the pen of Dr. Grover Coe, in a work on "Concentrated Organic Medicines." Were Dr. Coe a homœopathist, he would appear in a much better light in his essay on remedial agents, as it is, he makes himself obscure and sometimes ridiculous, by seeking to account for the *modus operandi* of certain medicines, upon vague and theoretic grounds, and by ignoring the law of *Similia.*

Of *Euphorbin*, the concentrated principles of the E.-corrollata, he says:

"The Euphorbia is a reliable acquisition to our indigenous materia medica, and fulfils many important indications. In small, repeated doses it acts as a diaphoretic, inducing free perspiration, deterges the mucous coats of the stomach and bowels, stimulates the functions of the liver, and corrects the tendency to *colliquative diarrhœal discharges.*" (!!) "When administered as an emetic, it will generally vomit without exciting any previous nausea, while at other times considerable prostration of the muscular system with lingering nausea will be observed; paleness of the countenance, and cool, moist state of the skin, from which, however, the patient rapidly recovers, as soon as the medicine has operated upon the bowels."—"We deem the Euphorbia one of the most powerful and, at the same time, safest revulsive remedies that can be administered for the relief of cerebral congestions. It excites powerfully the absorbent and venous systems, and is therefore frequently employed for the removal of dropsical effusions, removing them when other means fail." [This is all vague theory. It acts similarly to the Elaterium.]

After stating pretty fully its irritating action on the mucous coat of the stomach and bowels, this author, strangely enough, goes on to say:

"We have found the Euphorbin of much utility in the treatment of cholera infantum, diarrhœa, and dysentery. (!) It seems to exercise a peculiar control over the glandular structure of the intestinal canal, correcting and giving tone to the action of the secreting vessels, and promoting the assimilation of nutritious matters." All of which is mere nonsense. It acts by virtue of its power to cause similar pathological conditions in healthy persons. Is it not strange that allopathic writers should labor so hard to cover up the real action of drugs, when the actual law of their remedial action is so apparent to every sensible mind?

With a full knowledge of its power to cause "hypercatharsis with inflammation of the bowels, cramps, and vomiting," he says: "We (I) have administered it in cases of cholera infantum, when the alvine discharges were watery, copious, and offensive, and had as the result of its operation well-digested stools without fœtor."

Then, to gloss this to him incomprehensible power, he resorts to unworthy special pleading, thus: "We have been unable to discover that the Euphorbin acts as a special irritant upon the bowels, but, on the contrary, esteem it as a corrector of irritation." (In small doses.) "Our observations of its operation have led us to the conclusion, that the irritation sometimes observable is the result of an increased activity on the part of the eliminating vessels of the alimentary canal, and the consequent depuration of certain morbid and acrid materials from the blood, which, being brought in contact with the mucous surfaces, constitute an extraneous cause of excitement." This language reminds one of the obscure and foggy reasoning that our medical grandfathers indulged in a few centuries ago—a jargon of unmeaning phrases.

The Euphorbium-cor. causes, like the Verat.-alb. and its analogues, a decided and profound depression of the vitality of the nerves of the stomach and bowels, and an utterly relaxed condition of the intestinal capillaries. It induces a pathological and pathogenetic state, which presents a picture resembling with wonderful fidelity cholera morbus, cholera infantum, colliquative diarrhœa, sea-sickness, and many other forms of lesion affecting the digestive tube. It may act in large doses as a direct local irritant, in the same manner as Tartar-emetic; for the juice of the root will produce vesiccation and pustules upon the skin, and perhaps upon the mucous membrane. But it certainly possesses a dynamic power, which exercises a profound influence through the medium of the nerves.

Pathogenesis.—A resumé of the *symptoms* after Hahnemann's method would be as follows:

Head, &c.—Vertigo. Swimming in the head, with faintness, dimness of sight, and prostration. Everything seems to be whirling around. Vertigo, with ringing in the ears. He fears he is going to die. Death-like sensation, with anxiety of mind. No desire to live unless relief comes soon.

Digestive Tract, &c.—Burning in the mouth and on the tongue after taking the dry powder. Vesicles on the lips and tongue after tasting the fresh root. Sudden nausea one hour after taking the powder, followed in a few minutes by sudden and forcible vomiting and diarrhœa of watery (rice-water) fluid, with sinking, anxious feeling at the stomach, faintness, slow and weak pulse (40), cool skin, cold hands and feet, which become affected with painful cramps. Profuse colliquative discharges from the bowels, like the evacuations in cholera, with painful spasms of the intestines. Cold sweat on the body and extremities. Spasms of the legs and feet.

Pathology.—I had intended to make some experiments on animals, with the view of showing its pathological effects upon the mucous membranes of the stomach and bowels, but have been unable to devote the necessary time. I hope to present the profession with the results of such experience soon. This paper is published to call the attention of my colleagues to this important remedy, and ask their assistance in perfecting its pathogenesis.

If we may be allowed to judge from analogy, we can safely affirm that its physiologico-pathological effects are similar to those caused by the Elaterium, Verat.-alb. and viride, Jatropha-curcas., and perhaps Aconite.

Clinical Remarks.—This remedy is perfectly homœopathic, judging from its pathogenetic symptoms and its known effect in disease, to many morbid conditions of the digestive tube; many serious and severe diseases of the stomach and bowels, as well as some affections of the liver, kidneys, and skin. In some forms of *aphthæ*, accompanied by vomiting or diarrhœa, and that condition of the alimentary mucous membrane characterized by an aphthous exudation extending from the mouth to the anus. This condition is often seen in children and nursing women, and vulgarly known as "*thrush.*" In this affection I should advise the lower dilutions of the tincture prepared from the fresh root, or made from the milky juice of the plant. After this, Hydrastus, Rhus-vernix, Borax, and Arsenicum or Tartar-emetic may be tried. In weakly subjects Phosphoric and Sulphuric-acids will prove useful. The Chlorate of Potash is an admirable remedy in some cases.

Sea-sickness and the severe *vomiting of pregnancy* will be benefitted by the medium dilutions of the tincture of the dried root. It is useful in the vomiting which arises from fright, over-indulgence in ices, fruits, &c., or from the effects of acrid matters in the stomach, such as large doses of Ipecac., Antimony, Lobelia, &c.

In *cholera morbus* and *cholera infantum* we have abundant proof of its utility. I have known it to cure these affections after the usual remedies had entirely failed. In such conditions, if the evacuations be *acid* in their nature, the acidity should be corrected by small quantities of Carb.-soda or Magnesia, otherwise the prompt curative effects of the Euphorbium will not appear. This is a point too often ignored by homœopathic physicians. Hahnemann taught, that these chemically altered conditions of the fluids were the result of perverted dynamic action, and were to be cured dynamically. This may sometimes be the case, but oftener it is the result of actual acid fermentation of the contents of the stomach and intestines, and must be met by remedies which act in a chemical manner.

Many remedies, apparently well chosen, will not act beneficially in such conditions, but act promptly upon its removal, the acid in such cases antidoting, perhaps destroying its medicinal principle.

In *acute enteritis*, *gastritis*, and other inflammatory diseases of the gastric and intestinal mucous membrane, I should consider it admirably indicated, if the other symptoms corresponded. In toxical doses it undoubtedly causes active inflammation of their structures, and then, instead of watery evacuations, we may have mucous and bloody discharges, accompanied by pain and tenesmus. In these diseases the higher dilutions would be preferable.

The *colliquative diarrhœa* of consumptive and typhoid patients may be benefitted by this remedy, as also those obstinate chronic diarrhœas which are prevalent among soldiers in camps, and are probably caused by bad food and worse water.

It will undoubtedly prove useful in many of the diseases of children, such as sympathetic or irritative fever, worm fever; in fact, all febrile action when caused by irritation of the bowels. Dr. Coe says: "We value it exceedingly in the treatment of the indigestion of children, and for the removal of all that train of symptoms which is usually supposed to indicate the presence of worms. These are, loss of appetite, or it may be variable, voracious at times, and none at others; furred tongue; feverishness; fœtid breath; bloating of the stomach; constipation, or, on the contrary, a troublesome diarrhœa; emaciation; peevishness; wakefulness, &c."

In such cases I had the best effects from the first decimal trituration of the root-bark, or the third trituration of the Euphorbia. But Santonine is the most reliable specific.

Finally, it may prove useful in some of the exanthemas, such as eczema, pustular ring-worm, erysipelas, milk-crust of children when associated with diarrhœa. I do not know whether its internal administration will cause its peculiar effects on the skin; my experiments were not carried far enough to test the matter. We may safely suppose, however, that it may thus act, similarly to the Croton, Rhus, and Tartar-emetic.

In all affections of the skin, its external use as a lotion, Cerate, or Glycerole should accompany its external administration.

I have carefully prepared a tincture of the dried root, and have some of the powdered root, which I will gladly send to any physician wishing it, and would earnestly solicit a trial of its remedial virtues in the above-mentioned diseases; and careful provings on healthy persons, and the lower animals.

The *Euphorbin* can be obtained of B. Keith and Co., New-York, and Wm. Radde, who will carefully prepare the trituration from this preparation and the crude root; also the tincture and dilutions from the dried and fresh root.

ARTICLE IV.—*Phthisis Pulmonalis.* By F. W. HUNT, M.D., of New-York.

THOUGH the amount of labor and talent expended in the investigation of the phenomena of pulmonary consumption has perhaps been greater than that ever bestowed on any other disease, every laborer has been disheartened by the conclusions to which his researches have led him. The inquirers have found the subject involved in an intricate web of Gordian knots which required a sharper sword than that of Alexander to unravel or dissect them; and, after enlarging the powers of their microscopes, and giving keener edges to their scalpels, they have been mortified to learn that increased knowledge of the pathology and nature of consumption was not followed by corresponding improvement in its therapeutical management. We may at least, however, derive some gratification from the fact that the subject is not abandoned in despair, but that it still occupies the time and attention of the highest intellects. It is declared to be "an inconceivable anomaly, that so vast a proportion of mankind should be permitted to perish under the influence of a single disease in the very prime of life;" and we must still believe "that diligent research and extended means of investigation will yet one day be rewarded by the discovery of some reliable method of limiting the ravages of this devastating plague." In this faith the labor which has worn out the lives of many self-devoted martyrs still goes on. Like the alchymists of old, we do not find what we seek, but sometimes we find something else worth knowing.

M. Louis, after toiling seven years in the dissecting rooms of Paris without discovering what he was looking for, proposed that the investigation should be commenced anew by an *association* composed of a large number of competent observers. But his proposal has never been carried out; and the best thing we can do at present is to collate and sift the general results reached by the best and most recent observations of numerous isolated individuals. We proceed then to overhaul the cargoes of the many ships we may find afloat on the high seas of medical literature, and will endeavor to bring into port the condensed spirit, somewhat "rectified," of the periodicals and books which we may find freighted in part by our unpromising subject.

THE NAME.—*Phthisis* (from φθιω, to consume).

SYNONYMS.—*Tabes Pulmonalis*, of Cullen. *Marasmus Phthisis*, of Good.

It has been defined to be "a depraved constitutional state, tending to the deposition of tubercle in the air-cells of the lungs."

PROMINENT SYMPTOMS.—Emaciation; debility; cough; hectic fever; purulent expectoration.

DIAGNOSIS, PROGRESS, AND TERMINATION.—Phthisis is most commonly developed between the ages of eighteen and thirty; and it is believed that one-fourth of all who die before puberty die of tubercular diseases.

Precursory Phenomena.—The positive appearance of tubercle in the lung is preceded by a period of ill health, frequently well marked, and capable of being easily recognized. The constitutional cachexia manifests itself before its most dreaded consequences have become apparent. Louis asserts, that "tuberculization commences from six months to two years before its announcement by cough or any obvious pectoral symptoms." Dr. Hogg, in his "Practical Observations on the Prevention of Consumption," thus sums up the symptoms of this stage: "Emaciation, susceptibility to bronchial catarrh, mental lassitude, failing of bodily strength, shortness of breath, weakness of sight, falling off of the hair, frequent perspirations, occasional palpitations, an unsatisfactory state of the digestive organs and the alimentary canal." (p. 42.)

Dr. Cotton thus describes the incipient stage of consumption: "From some cause, for which no good reason can be assigned, there is a slow but marked diminution of bodily vigor, compelling the individual to abandon many of his accustomed pursuits; the spirits nevertheless are good, and not only is the idea of consumption never entertained, but any allusion to it is at once ridiculed. So general, indeed, is this hopeful condition—this almost instinctive blindness to the real cause of distress—that in its absence, however suspicious certain symptoms appear, these may, with much probability of accuracy, be pronounced unconnected with phthisis. In phthisis, when fully established, the complexion is usually pallid or sallow; the expression is that of care, united with animation; the features are somewhat sharpened; the movements of the body are hurried and anxious; the mental condition is irritable and capricious, whilst every act betrays an effort—sometimes instinctive, and at others voluntary—to conceal the presence of disease. The appetite is uncertain; and there are frequent indications of imperfect digestion, as well as a tendency to passive diarrhœa and headache. The pulse varies in different cases, but is generally small, and and easily excited. The sleep is restless, unrefreshing, and occasionally attended by perspirations. Loss of weight is of invariable occurrence; sometimes the decrease is so rapid that it will attract the attention of friends; at other times it requires the periodical use of the weighing machine to detect it." In a few instances the emaciation has been so rapid, that several pounds have been lost within a few days. It is when a number of the above symptoms are found together, when "the patient's antecedents, his occupations, and habits of life, or any other circumstances, seem to be conducive to phthisis," that the physician is reluctantly compelled to regard the sum total of the evidence presented to his mind as conclusive that consumption is becoming positively established.

The statistics published seem to show that females are more subject to consumption than males,* and their education, habits of life, their absurd modes of dress, and the requirements of society in civilized countries are well calculated to excite this disease. In the city of New-York the number of deaths is greater among males. In the year 1860 the whole number of deaths was 22,710. Of these 3,186 died of consumption; males 1,627, females 1,559. In 1861, the whole number of deaths was 22,117. Deaths from consumption, 3,025,—of which 1,576 were males, and 1,449 were females. But the statistics of last year also show, that of the 3,025 fatal cases of consumption, only 950 occurred in persons born in the United States; therefore no general conclusion can be drawn from them.*

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* See Reports by Louis, Forbes, Skoda, Laennec, Andral, Clark, Young, &c.

Months.	1855–6. Fort Snelling.			1855–6. Fort Columbus, N. Y.			1855–6. Ft. Independence, Boston.		
	Max.	Min.	Range.	Max.	Min.	Range.	Max.	Min.	Range.
	°	°	°	°	°	°	°	°	°
December....	44	—30	77	52	14	38	52	7	45
January......	32	—34	64	36	—6	42	36	—5	41
February.....	42	—31	73	40	4	36	41	1	32

	1856–57.			1856–7.			1857–8.		
	Max.	Min.	Range.	Max.	Min.	Range.	Max.	Min.	Range.
	°	°	°	°	°	°	°	°	°
December....	35	—15	50	47	4	43	54	13	41
January......	28	—35	63	36	—5	41	54	9	45
February.....	42	—35	77	60	6	54	45	6	39

Years.	Fort Snelling.			New-York.			Boston.		
	Max.	Min.	Range.	Max.	Min.	Range.	Max.	Min.	Range.
	°	°	°	°	°	°	°	°	°
1855........	96	—33	129	92	—6	98	98	—5	103
1856........	95	—32	187	95	—6	101	98	—5	103
1857........	91	—35	126	91	15	76	91	—13	104

It will be seen by comparing the statistics, says Dr. Lewis, of St. Paul, Min., that, although "uniformity is not characteristic" of the climate of either the Atlantic coast, nor that of Minnesota, "the range of temperature for both is limited to very different points on the thermometrical scale." At New-York "the Mercury vibrates fitfully from some point above to one below freezing." In Minnesota its vibrations are from one freezing point to another—its more usual range in winter being from 15 below to 15 above zero." It does not usually rise so high as the freezing point during the winter months. It is therefore claimed, that the climate of Minnesota, though colder than that of the Atlantic coast, presents less variation between freezing and thawing; and that fluctuations of temperature between one point and another in a dry cold atmosphere has little influence on health.* Of the relative advantages of various points from Canada to Florida and California, as presenting remarkable immunity from consumption, we have many learned essays, but must omit any comparison between them. The following remarks, by Dr. Dunham, of Newburgh, N.-Y., are important.† He says, the treatment of phthisis "in Brooklyn was in his hands most unsatisfactory; but he finds it in Newburgh to be "very amenable to treatment, and, although in cases in which the disease is far advanced, he can boast of no cures, yet the relief afforded even to such cases is very remarkable, constant, and enduring for a period to which his previous observation of the disease offers no parallel."

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* City Inspector's Reports, 1860, 1861.

On the climate of the Bahamas, he says: Nassau "enjoys a climate totally different from any portion of the *United States* or of the *West Indies proper*. There are utterly unknown "the sudden alternations of temperature, the searching damp chilliness suddenly succeeding a scorching heat, the humid penetrating north-east winds sweeping down our Atlantic coast on the west edge of the Gulf Stream—which make the climates of Charleston, Savannah, and St. Augustine so trying to invalids with pulmonary and rheumatic diseases." The climate of Nassau is remarkably uniform,—being free from the occasional cold of the Florida coast, and from the extreme heat of Cuba and Santa Cruz. Yellow fever has been long unknown, intermittents are never seen, and bilious fevers are rare; phthisis, though not unfrequent among the blacks, is rare among whites.

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* Amer. Med. Times, Vol. IV., page 162.

† Amer. Hom. Review, Sept., 1859; p. 550.

For incipient phthisis this climate permits the invalid to spend his whole time in the open air; the bracing trade wind prevents him from falling into the lassitude common to tropical regions. Here, within four or five days sail, by steam, of New-York, the invalid can find English society, refinement, and hospitality, aloof from the usual seat of epidemic and contagious diseases, and the variable land climate of the American continent. In the months of February and March, which might be expected to furnish the greatest vicissitudes of temperature, showed only an average daily range of the thermometer of 5½° for March. While at Pau in the south of of France it is 7½°, at Nice 8½°, and at Rome 11°. At Nassau in February the lowest temperature was 71°, and the highest 85° on the 28th, and the ascent from one to the other was uniform.

The climate of the United States presents all the varieties of the temperate zone, without furnishing a single retreat to which we are able to point as a safe asylum for the consumptive, though the comparative advantages of different localities have been often urged upon our attention. The trance-dream of the invalid is a climate of *uniform temperature;* and in search of it he examines the claims of all the four continents and the five zones of the earth, to find that it nowhere exists. America does not pretend to furnish a spot that can approximate freedom from "sudden changes." We have now the means of comparing one point with another, as we have accumulated meteorological observations on the largest scale; but observers are not yet agreed on the lessons taught by these voluminous tables. We will contrast the *highest* and *lowest* points of the thermometer for two successive winters as observed at places remote from each other, as given in Blodget's "Climatology of the United States."

Dr. Edward Smith, of the Hospital for Consumption at Brompton, says, the condition that precedes tubercle is characterized by shorter breathing, less breath motion, feeble and shorter inspiratory sounds, and particularly the vascular, more or less general over both lungs. Expiration is quick, forcible, and perfect. Deep inspiration, though possible, is not effected until the attention of the patient is directed to it; and, commonly after repeated trials, the air inspired is diminished in ordinary breathing.

General condition of body is atonic; there is a *sense* of *weakness* and *languor*, with loss of flesh, manifested by a gradual loss of weight; slowly decreasing bodily vigor; pulsation and respiration are increased in frequency; the complexion denotes mal-nutrition; there is irritability of the mucous surfaces; the chest is flattened in original conformation, or becomes so during the progress of the disease; the features, from being round and placid, acquire a sharp and faded look, especially in the morning, when the eye lacks expression; there is dullness of sound on percussion; cough and hæmoptysis exist in some cases, though not in all. The bowels become constipated or unnaturally relaxed; the urine deposits lithates; and nervous and dyspeptic symptoms appear. After the development of tubercles the same symptoms continue, and to them are added evidence of obstruction in certain localities; this condition is manifested by the wavy or jerking respiration, or prolonged expiration; and there is less clearness of sound on percussion, showing obstruction and solidification. The lessened vital capacity (say 100 cubic inches at the earliest moment of recognized tubercle) is far greater than the tubercle yet deposited (in the earliest moments we could recognize it) could cause by displacement of air. The alæ nasi become slightly dilated; and the mouth takes a peculiar drawn expression, readily recognized. The predisposition to tubercle may exist for years, perhaps even from birth; but in many cases it is of short duration, the disease being originated by many causes in healthy persons. The circulation becomes accelerated towards evening, when the eye acquires an unnatural degree of brilliancy; and the constituents of the blood, which in health administer to the support and growth of the body, are converted into a morbid material.

Respiratory Sounds.—In the earliest stages they are more feeble than in health, for an uncertain period before flattening of the chest occurs. The respiratory sounds in health are limited to the bronchia and to the air vesicles. The bronchial sounds in health are only heard over the large bronchi; in disease they are heard over their smallest ramifications. The vesicular sounds are heard wherever there are air vesicles in action; they are feeble when the vesicular action is feeble, and they must be in some degree feeble to permit the bronchial sounds to be heard. Lessened vesicular action is evidence of lessened movement of the lungs. Lessened chemical and physical change in respiration, after the flattening of the chest is added, vesicular respiration, bronchial or harsh respiration, with flattening of the chest, all exist before tubercle is deposited.

M. Beau, of La Charité, mentions in addition to the premonitory headache, a more reliable symptom, which, he says, is very constantly found: a peculiar "pain felt on pressure in the popliteal region, or on the thigh, a little above the knee."

Second Stage. *Signs of the Existence of Tubercle.*—Obstructed breathing; wavy or jerking inspiration, and prolonged expiration,—increasing locally as the accumulation increases. The obstruction required to produce these signs must be partial and lateral, as opposed to complete and terminal: that is, it must occur in the course of the air-way, and leave a portion of the conduit open, so that the air may be forced beyond it. After an uncertain period there will be further moist sounds, indicative of air passing through a fluid which is then softened tubercle. The softening of the tubercle is not a corroding process, like that of ulceration, but is simply the imbibition by endesmosis of fluid by which the tubercular mass softens; it obtains the fluid by which it is softened from the walls of its cell. The process may be non-inflammatory; but exode of pus corpuscles always occurs at some period, and that is presumed to be the result of inflammatory action. The reason for the destruction of the tissue is not simply the softening of the tubercle, nor any inflammatory or ulcerative action; but the basement membrane and capillaries having ceased to act for a time, lose their vitality, and are ready to decay; and they only wait for a partial emptying of their contents in order to break down. Destruction of the tissue is indicated by moist, fine, crepitant rales in the tubercular mass. The softening of the tubercle and the destruction of the cell-walls having begun, it only remains that those processes shall go on, until all the tubercles have been eliminated, and a cavity results; and the whole are but steps to one process, and in truth are one stage of the disease. With softening, the bronchia are re-opened, and the air is admitted which produces the moist sounds, and ultimately all the signs which are indicative of a cavity; but, with the restoration of respiration, there is no increase of respiratory changes, since the air-cells in that part are destroyed, or perhaps removed. With the formation of a cavity the lung falls in, as do also the parts of the chest immediately covering it, and the dull sound on percussion will in part have disappeared. Thus the essential signs of the three stages of consumption are:* 1. Lessened action;—2. Obstructed action;—3. Destroyed lung. In proportion as structural disorganization progresses in this disease, there is re-action or compensatory effort set up by nature, by which one part of the lung is made to do a double share of duty when another part becomes incapable of performing its function, and the entire system quietly accommodates itself to its newly-induced condition.

Dr. MacLimont claims that simultaneous *percussion* and *auscultation* can be employed with great benefit, and that the *double* stethoscope of Dr. Cammann (which permits the auscultator to face the patient) removes all the obstacles to the *combined* use of these two means of investigation at the same time. "The advantage of this is very great, as the sound elicited by percussion is thus intensified to an extraordinary degree, and conveyed to *both* ears with a distinctness very different from the vibrations that reach the auditory nerve in the usual way, *i. e.*, through the medium of the atmosphere." "By this method, far better than any other, we may discover that earliest indication of organic lesion in phthisis, a certain *obscurity* of sound arising from a condensed pulmonary parenchyma; but no less satisfactory is it as a means of establishing a *differential diagnosis* in those cases in which we are sometimes at a loss to distinguish whether the dull sound is due to effusion or to induration of the pulmonary tissue; as also in cases of *cavities*, in which it may be desirable to ascertain whether they contain air or liquids, or both; if air only, then auscultatory percussion yields a far clearer sound than can possibly be got by the ordinary method; but if, as is most commonly the case in large cavities, air and fluids co-exist, then by this means the hydro-aëric sound may be heard very distinctly; while for recognizing that valuable evidence of a pulmonary vomica, the "*bruit de pot felé*," there is no means so accurate as the one I am now recommending. As a mode too of ascertaining the exact *size and form* of some of the internal organs, the liver, kidneys, heart, spleen, ovarian cysts, fibrous tumors of the uterus, &c., auscultatory percussion promises to be of signal service." "When the object is to ascertain the size or condition of an organ far removed from the surface, and where the impulse has to be communicated through an external covering of some thickness—as in percussing the abdominal organs," then the solid cylinder of cedar, as used by Dr. Cammann, or the pleximetre should be preferred to the double stethoscope.*

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* Smith, "Braithwaite's Retrospect," July, 1857; p. 67, &c.

Progress of phthisis in its later stages.—When the disease has advanced to the stage in which the febrile exacerbations, and the rapid respirations, the profuse night sweats, the mucous expectoration and exhausting diarrhœa show the inevitable termination of the patient's sufferings not far distant; he knows himself to be failing from week to week; but still he daily describes his condition as being "better." In females menstruation has already ceased; and emaciation progresses. "As the tubercles soften, the guggling or rattle of the matter formed may be heard with or without the stethoscope, the cough is cavernous; the respiration and rattle also become cavernous; pectoriloquism is heard as soon as the softened tuberculous matter is thrown off, and the cavity becomes empty; the sound on percussion still continues dull, but now and then a peculiar metallic sound is evident. As the disease advances towards the last stage, and the cavities acquire a large size, the respiration, voice, and cough give forth the peculiar hollow metallic sound or buzzing termed amphoric resonance. The whole body now presents the appearance of extreme emaciation; the face is pale, cadaverous, and frequently tinged with a waxen or lemon hue; the lips and roots of the nails are bluish, the nose pointed, the voice becomes hoarse, the mouth and throat aphthous; the feet œdematous; there is occasional delirium at night; and continual failing of the powers of life until death ensues.*

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* British Journal of Homœopathy, July, 1861, p 432.

DIAGNOSIS.—"The existence of tubercles can not always be positively determined by physical examination; as they may be so minute or so partially clustered as not materially to interfere with vesicular respiration."† But, says Scudamore. "If a patient have lost strength and flesh without apparent cause, have recently become short-breathed on slight exertion, especially on making a slight ascent; if there be more or less dry cough, quick pulse, night-restlessness and perhaps some dullness on percussion here and there in the upper parts of the chest, we have reason to fear that tubercles are formed. If others of the family have died of the same disease the suspicion is painfully increased." As the disease progresses there is a slight increase of arterial action; the pulse raging from eighty to ninety, increasing towards evening, and being, also, small and quick: the equilibrium, too, of the circulation, is disturbed, causing coldness of the hands and feet; and in the case of young females this unequal distribution of the blood often occasions irregularity, diminution, or even total suppression of the menses, "as if nature made an effort to economise" the blood, "being conscious of its vast importance."

The patient on whom this disease is insidiously fixing its grasp, breathes when in repose more frequently than in full health; the expirations and inspirations are unequal in point of time; and he is put out of breath by the slightest exercise; his chest is neither large, full, nor well developed; its movements are unnatural during inspiration or expiration; there is tightness or pain in the thorax; he inherits a psoric or scrofulous constitution; he has a cough from the slightest exposure, especially in the morning; his chest is inclined to become contracted, hence he stoops when sitting or walking.‡

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* Marcy, p. 352. † Scudamore on Phthisis.

‡ Marcy's Theory and Practice, p. 349.

Condition of the Throat in Phthisis.—1. There is a state of pallor without injection of the vessels, and without desquamation or inflammatory action. It is common in the early stages, particularly in persons engaged in public speaking, and is shown by dryness and disposition to cough; sensation generally referred to the fauces, pharynx and upper part of the larynx alone. It is most annoying in the early morning, and on change of temperature, demanding frequent efforts to "clear the throat, causing hoarseness, rawness. The surface does not always appear dry, but it is smooth and shining, and the parts are attenuated. The anterior arch is atrophied whilst the posterior stands out in sharp relief, and the intervening space is large and excavated from the absorption of fat from the areolar tissue, and oftentimes from a diminution in the size of the tonsilar glands. The latter organs seem to be of a looser texture, and to have their superficial follicles projecting. This condition is one of lessened tonicity with increased sensibility, and with a diminution in the secreting function of the epithelium and mucous follicle. It may or may not be associated with derangement in the secretory organs, and is amenable temporarily to local treatment, as well as to the influence of constitutional remedies. In this stage, the lungs are not positively diseased and the study of the rational signs is attended with difficulty.

2. *Condition.*—Pallor of various parts of the fauces, injection of defined vessels in some parts with more or less diffusion in others, and at each the parts appear to be loose and relaxed, the distended vessels are most evident in the uvula and the diffused redness on and between the arches and upon the tonsils. Enlarged mucous follicles are very marked in many instances, chiefly in the pharynx, uvula and arches, as colored vegetations: ulceration of some of the follicles of the tonsil, and chiefly at its upper part, the uvula is enlarged and elongated. In this condition there is less sensation of dryness and irritability of fauces than the last; but there is a troublesome sense of constriction or irritability at the lowest part of the trachea in the neck. There is a sensation of phlegm adhering to parts about the fauces which keeps up cough to detach it: there is disordered action of the alimentary canal or the liver.

*3d Condition.—Desquamation, Fibrinous Deposition, or Ulceration.** —The desquamation occurs in patches, with or without fibrinous exudation, and chiefly in the pharynx or arches of the fauces. The fibrinous exudation lies as a layer upon the denuded mucous surface and may be partially removed by a brush; the parts are of a reddish and dull hue, and hoarseness progressively increased in intensity. Most complain of the throat after, not during a meal. The tonsils are enlarged and red, the fauces laterally contracted; there is soreness on pressure on the sides of the pomum Adami.

State of the Alimentary Canal in Phthisis.—There is an excess of acidity which more than neutralizes the alkaline secretions of the saliva and pancreatic juice. These fluids are therefore incapable of "transforming the carbonaceous constituents of vegetable food into oil, or of so preparing fatty matter introduced into the system as will render them easily assimilable. In consequence, more albuminous than fatty matters enter the blood, and the necessary waste of structure is supplied by the absorption of the adipose tissue of the body—hence the emaciation which characterizes the disease.†" "The body is not nourished," says Dr. Paris. "The patient having lived as long as one particle of fat remains that could be absorbed for his support, dies of atrophy." "In the meanwhile the lungs, not having so much carbon to excrete in the form of carbonic acid, become especially liable to local congestion, leading to exudations of an albuminous kind, which is tubercle."

Pulmonary Symptoms.—As emaciation progresses and strength declines, cough makes its appearance; with increased breathlessness hæmoptysis occurs; pains in the chest; nocturnal perspirations: dyspeptic symptoms become more troublesome: percussion denotes consolidation of some portion of the lung, in a vast majority of cases at the apex: auscultation now proves that at this part air is but feebly and with difficulty permeating its structure. During the second stage, the stethoscope gives evidence of the softening of the tubercular masses; during the the third and last, the presence of a cavity is, by the same means, rendered manifest. The general symptoms are those of the first stage, only in much greater intensity. The cough becomes attended with expectoration which varies alike in its quality and degree. As the disease advances the pulse rises, emaciation becomes extreme, and all the symptoms point to a rapidly fatal termination. (Dr. Pope. Brit. Jour. Hom. Jan. 1862, p. 19.)

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* Dr. Smith, Braithwaite, July, 1857. p. 68. † Bennett—Gelston.

Urinary Secretion.—The urine in phthisis and in all lesions of the nervous centres is deficient in *urea.* There is therefore an equivalent excess of this constituent in *the blood, as in Bright's disease,* (*Reynoso*).

Functions of the Skin.—These become impaired, and the skin becomes pale as well as moist and clammy, while the inability to take a proper amount of active exercise has a tendency to produce engorgement of most of the internal viscera, and consequent disturbance of their functions; while the non-elaboration of healthy blood produces badly assimilated chyle, "which is supposed to favor the formation of tubercle, and this is deposited in the lungs or other organs. When the lungs present the point of attraction and become the probable seat for tuberculous deposition, the patient begins to be specially subject to colds, catarrhal attacks, after the least exposure. In these catarrhal affections originate that obstinate bronchitis which so generally precedes or accompanies phthisis.

Incompatible Diseases.—M. Beau, of La Charité, in a recent lecture, speaks of the rare occurrence of phthisis in hysterical subjects. The same immunity from phthisis has been observed in persons suffering from asthma and emphysema of the lungs. This immunity is not universal.

Pathology.—The primary nature of phthisis is not understood, and widely different views of its pathology have been given by different authors. A late writer, Dr. Cotton says: "It is a peculiar and obscure condition of the whole system, in which, instead of the healthy nutritive material required for the growth and reparation of the body, there is produced in the blood a morbid substance which sooner or later appears as *turbercle,* or *tuberculous matter* in the pulmonary structures." This state of the system he regards as identical with that known as struma or scrofula.

In consumption, as in many other maladies, we are permitted to "recognize the disease only in its effects. It is evident that there must be *something* which constitutes the malady: but it would be vain to search after it:—it has no individuality:—it is a *process* which, like many others, is so subtle and far removed, even from our conceptions, that it seems destined to remain forever beyond our reach; we are allowed to do nothing more than study its laws and, in some measure control its action " (pp 2, 3). We regard consumption with a vast number of chronic diseases as the product of some latent dyscrasia, which, though generalized by Hahnemann under the generic name "psora," may present peculiarities in individual cases; but they can only be cured by constitutional remedies. Dr. Epps, defines phthisis to be a disease depending upon a cachexia differing in different cases, each case of phthisis having a "special cachexia" of its own. Dr. Hogg considers it as depending on "constitutional debility" on a want of power in the system, on an impaired state of the digestive organs—in a word, "on strumous diathesis." p. 3. Dr. Bennett considers phthisis to consist of "a mal-nutrition arising from imperfect assimilation." Dr. Turnbull says he believes the condition which causes the development of tubercles to depend on "a state of imperfect nutrition: a condition in which the digestive organs are unable to manufacture from the food a perfect kind of blood, capable of nourishing every part, without allowing some imperfectly formed particles to escape at the time."* This author elsewhere gives the opinion that "imperfect digestion, combined with deficient oxydation or a want of uniformity in the action of the oxygen on the blood, and through this fluid in the whole system is the main cause.† Dr. Pope thus concludes: "Mal-nutrition of the tissues is undoubtedly one of its earliest features as it is one of its most fatal characteristics: but in order to the development of tubercle, the imperfect digestion producing it must occur while the constitution is under the influence of a cachexia peculiar in its nature, tending under certain circumstances to the production of tubercle. Dyspepsia, however severe and intractable does not necessarily culminate in phthisis. (Brit. Jour. Hom. No. LXXIX., p. 18.)

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* "An Inquiry how far Consumption is Curable.

† Progress of Improvement in the Treatment of Consumption. By James Turnbull, M.D., London, 1853.

Dr. Gregg of Canandaigua, N.Y., regards the tuberculous deposit, as "simply the result of *a perverted secretion* of *the mucous membranes;* and says this is equally true, whether such perversion has originated in the individual who is suffering, or whether he has inherited the predisposition or taint from his ancestry." He thinks his experience proves that the great natural law discovered by Hahnemann, when "properly applied, is amply competent, not only to stay and cure the disease in cases where it has not yet extensively broken down the structure of the lungs, but also so to eradicate the tuberculous tendency as to cut off all transmission of this tendency by inheritance."*

Development of Tubercle.—The proximate cause of phthisis, says Dr. MacLimont,† is "a material formed and deposited from the blood, and the condition of this fluid most conducive to its production consists in an excess of fibrin and a diminution of the red globules." But every person in this condition is not in a state of incubative tuberculosis: for "in addition to all this and much more, there is required for the production and deposit of tubercle, a remote cause—a diathesis—hereditary and not acquired"—the precise nature of which is unknown. But whatever the nature of the consumptive diathesis may hereafter be proved to be, it is at least known that "the deposit of tubercles is the result of *depraved innervation*, and that the main chance of benefitting the patient consists in the early discovery of the symptoms," and bringing to bear upon them all the curative influences within our power.

The exposition of the origin and development of the matter of tubercle given by Dr. Curtis,‡ has at least the merit of clearness and plausibility: He traces "the first link in the chain of morbid action," not to the blood nor any result of inflammation, but to "the ultimate cell structure." "Here, in the ultimate cells the first perverted action is found—a molecular and cell growth, whose function and development is abnormal and degenerative, and which has a power of producing in other tissues, the same morbid peculiarities that characterize itself. But whence originated the mother cell of this perverted mass? It could not have sprung from the blood, because the blood has no direct formative power—neither could it have had a spontaneous development: it must have been derived from a once normal cell; but, in order for such a derivation, the normal cell must have undergone a transformation so as to become abnormal. And we can account for it in no other way than by regarding it as originating in some peculiar revolution that has taken place in the parent cell, by which its function has been perverted and its physical and vital tendencies changed. Such a revolution could not have been produced excepting through a disturbance of the just equilibrium existing between the vital and chemical forces acting within it, and by which its functional and reproductive revolutions are governed. This change in the character and products of a once normal cell having taken place, other cells resembling it in every particular, the offspring of the first, would necessarily be produced in a very short time, on the principle that 'like produces like.' And in accordance with the law of molecular motion, these abnormal cells would have the power of imparting their own motion to other cells with which they might be in contact. Thus we can readily perceive how this morbid action may readily extend and increase locally. And by the unnatural and depraved products of perverted function being absorbed into the circulation, 'the life of his blood is touched corruptibly,' and the morbid material becomes diffused through all the tissues of the body, and thereby sooner or later eventuate in death."

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* Phthisis pulmonalis, &c. Canandaigua, N.-Y., 1859.

† Brit. Jour. Homœop., No. 77, p. 429.

‡ St. Louis Medical and Surg. Journal, Sept. 1861.

Bearing upon this point, and in opposition to the doctrine of "free cell development," Prof. Virchow says: "Even in pathology, we can now go so far as to establish, as a general principle, *that no development of any kind begins* de novo, *and, consequently as to reject the theory of equivocal,* (spontaneous) *generation just as much in the history of the development of individual parts as we do in that of entire organisms.* Just as little as we can now admit that a tænia can arise out of saburral mucus, or that out of the residue of the decomposition of animal or vegetable matter an infusorial animalcule, a fungus or an alga, can be formed: equally little are we disposed to concede, either in physiological or pathological histology, that a new cell can build itself up out of any non-cellular substance. Where a cell arises, there a cell must have previously existed (*omnis cellula e cellula,*) just as an animal can spring only from an animal—a plant only from a plant."

Anatomical Character of Tubercle.—Rokitansky showed that tubercles originally occur in the lungs in two forms: 1. "The interstitial tubercular granulation, round grayish bodies found discrete or collected into heaps: their seat is the interstitial tissue between the smaller lobuli and the cells of the lungs and on the walls of the cells themselves. This is the most common form of deposition.—2. Tuberculous infiltration. This consists in a deposition in the pulmonary cells, as a result of the process identical with common pneumonia, except that the lymph deposited in the cells, instead of being resolved or running into pus, becomes, from the influence of tubercular diathesis, the yellow tuberculous matter, thus constituting hepatization by means of a tuberculous deposit. This form is always the result of a high degree of the peculiar tubercular diathesis." (Dr. Gelston, Brit. Med. Jour. Oct. 1860. p. 603.)

Microscopical Structure.—Tubercular matter "consists of corpuscles which are characteristic of tubercle," and of granules and minute molecules. The corpuscles have no nuclei, and are considered to be undeveloped cells, which approach more or less nearly to the exudation or plastic cells of healthy inflammatory deposits. The miliary tubercle has some appearance of cells and fibres, but the crude yellow tubercle has no appearance of organization, and during softening the corpuscles swell, burst and discharge granules."

[To be continued.]

Article V.—*The Pathology of Intermittents.* Read before the Illinois Homœopathic Medical Society. By J. S. P. Lord, M.D., of Chicago. Published by Request of the Society.

In intermittents we have, general heat—General chilliness—Partial heat—Partial chilliness—General heat with partial chilliness—General chilliness with partial heat—Heat followed by chills—Chills followed by heat—Heat and chills together—External heat—Internal heat—External heat with internal chilliness—External chilliness with internal heat, &c.

Will the doctrines of existent or exploded schools—"concoction," "lentor," "spasm of the living fibre," accumulated or exhausted excitability, or combustion, explain these phenomena satisfactorily? We think not. At least, all but the last have long since been abandoned.

The whole question seems now to be narrowed down to the single issue—is animal heat the result of nervous or chemical agency?

Chemical agency may produce or develop heat in a dead animal, but that it has done so in a living one has never been demonstrated, and in the very nature of the case never can be. It is a mere inference, and may or may not be true. The strong position of one of our standard authors, one too, who says, "Good Lord" and "good devil," adopting both doctrines—is this, "that the production of heat in living bodies may take place without any possible assistance from nervous agency, is manifest from the phenomena of vegetable heat; and there can be no reasonable doubt that the source of this production is a true combustive process. And the evidence afforded by the *post-mortem* production of heat in the human subject conclusively points to the same result: more particularly as the elevation of temperature observed in the brain was uniformly less than that which was in other large organs." Now it is not easy to discover why a maple or a pitch pine tree may not have their peculiar apparatus for the production of vegetable heat as well as for that of sugar and turpentine. There seems to be no particular need of nerves or brain in vegetables, which have their own heat-making apparatus.

Nor does there seem to be any necessary relation, and very little analogy of function, between vegetables and animals in the matter of heat production. It would be equally pertinent to claim, that, because men generate heat like vegetables, (if they did so,) they must be tapped and boxed as sugar-orchards and tar-forests. Nor yet is there much logic in the conclusion that "nervous agency" is subordinate to chemical, in the production of animal heat, because in some human subjects, the temperature has been increased several degrees after death, and therefore it is a "*true combustive process.*" And there is assuredly still less in his last conclusion, to wit: that because the brain had the lowest temperature in a case of "*post mortem production of heat,*" (as he elegantly expresses it?) and the thigh the highest, therefore "nervous agency" had nothing to do with that, and very little with the production of animal heat, at all. It may do to amuse a class or astonish the credulous, but the careful inquirer is scarcely satisfied.

Before he speculates much about a *thing* he will *wish to know what the thing is.*

And now, what is heat?

A satisfactory answer to this question would go far to elucidate the subject of our present inquiry. We will first state as clearly and concisely as possible our premises, mainly deduced from the discoveries of modern science.

1. All the phenomena of nature are resultant from the application of force to matter. 2. Force is a unit. 3. Every molecule of matter was originally endowed with this force, which is inherent and may be called molecular force. 4. Any increase of this force must be derivative and would compel the molecules to aggregate. 5. The sun is the central and only source from which any increase of force can be derived.

6. This addition to molecular force causes all the variations of form, and changes of character in inorganic aggregations of matter directly, and in organic indirectly, and may be termed modelling force. 7. Molecules once forced into a mass, having a definite form, by the modelling force, will ever after retain the tendency to reassume that form rather than another.

8. An aggregation of molecules of a definite form, can impress upon other matter its own derivative or modelling

force, so as to compel the other matters to assume (its own) form. 9. The types or models of all mineral or inorganic forms probably exist in the sun.

10. No body or mass of matter can impart any but its own resident force. 11. The sun force or modelling force may properly be called the crystallic. This is the simplest form and really the elementary base of the vegetable and animal.

12. The type or model of vegetable and animal form was originally fashioned and moulded by the Creator, and each one has the power of impressing on molecules its own peculiar modelling vegetable or animal force, and compelling them to assume its own definite form and functions.

13. The molecular force is probably, perhaps necessarily, unchanging. The derivative or modelling force is constantly changing, by accessions from the central source, and through the disintegration and dissolution of form.

14. Force is indestructible; always acting in some direction and is never lost. When it ceases to act in one place it may be found in some other place, or in some other character. Yesterday it formed a crystal; to-day it conveyed a telegram; to-morrow it may elaborate a tulip, and the next day model a *human*——Or it may paint a photograph, grind a needle, forge an anchor, vitalize a magnet, weld a nail-rod, or color a violet.

15. Force acts continuously and never tires, never falters. Molecular force impels molecule against molecule, but acting equally in all directions prevents aggregation; *i e.* repels.

16. All matter being acted on continuously is always in motion, and consequently there is no such condition as absolute *inertia* or rest.

17. Modelling force compels to aggregation—a deficiency permitting abortion or defect of form, a normal quantity perfecting it, and excess, changing to some accessory force, for all force is subservient to form.

We know nothing of force only as it moves matter. Force then is manifested only through the vibration or striking of molecules or aggregations of molecules against each other; and as no physical change can occur without force, it follows that the vibration of molecules is the proximate cause of all physical changes or phenomena. All modifications of form are due to excess or deficiency or modality of derivative force. In other words, to frequency, or length, or both, of vibrations; and as the combinations are practically infinite, the results must be practically infinite too. To the specific modelling forces by which these results are affected, have been applied for convenience sake, or through ignorance, the terms crystallic, electric, magnetic, heat, mechanical, chemical, gravitative, &c. Force being a unit, it follows that these forces are interchangeable, convertible, or correllative, and the law of change is expressed by the term "CORRELLATION OF FORCES;" which means just this and no more. If a given force produces a given amount of vibration in a given time, any increase or diminution of it, will change or modify the vibration, to some other amount, that will give a different result. Any change in condition of circumstance of the molecules or masses acted on, will have a similar effect. To illustrate our meaning we will first offer sound as the most familiar example, and most easily understood.

Sound has been demonstrated to be the vibration or striking of molecules or aggregations of molecules against each other. These vibrations have been measured, and our perception of varieties of sound, depends on the numbers of vibrations, other things equal, in a given time. Thus one string of a violin at a given tension yields 20,000 vibrations in a second, another 16,000, another 12,000, and the fourth 8,000, and the same force applied to each string separately, uniformly yields the same result. An increase or diminution of force will modify that result, and so will increase or diminution of tension in the string or ear, or varying the thickness of the shell, or even a change of atmospheric density. In fine any change of condition or circumstance will modify sound. The vibration called sound, which is impressed upon the ear is equally impressed on surrounding inorganic masses at the same time; and when revibrated from them, and striking the ear, gives evidence of the modelling force, by the peculiar character of the vibration. So that a delicate organ may determine the form and characteristic qualities of the mass from which the sound is reflected, because it instantly impresses its own modelling force on the rebounding vibration.

Sound correllates mechanical force.

Mechanical force correllates:

1st, *Sound*, when a drum is beaten. 2d, *Light*, when a blow is struck against the forehead, over the eye. 3d, Electricity, magnetism and heat by friction. 4th, Cohesion and gravitation by pressure, &c., &c, Heat correllates light and light, heat. Light correllates chemical force, and chemical force, light, electricity and heat, as in combustion. All forces with which we are acquainted have reciprocal relations, or in other words are mutually convertible. This convertibility is sometimes determined by apparently the most trivial circumstance or differing condition of molecular aggregation. That is, by the resident modelling force. Gravitation seems an exception to the law of convertibility for the reason that its fundamental condition, the mass of the earth, is virtually unchangeable. But gravitation correllates, and is correllated by animal magnetism, in "table tipping" and other like phenomena, and also correllates electricity and mineral magnetism.

A bar of iron may be used to illustrate our ideas of "correllation of forces." Its molecules were without form, in a state of vibration; kept or forced alternately, towards and from each other by molecular force, until the type or modelling force from the iron in the sun, reaches, and forces them into a state of aggregation. By various additions and correllations of mechanical, chemical, and heating forces it at length becomes a bar. Now only a part of the modelling or form force remain in the bar as form force; the balance has been converted to crystallic and cohesive. Apply mechanical force by hammering, and a part is converted into cohesive force and a part into heat, and perhaps electricity and light. Again apply mechanical force by trituration till the bar is levigated, when it will ignite on exposure to cold oxygen. The mechanical force is in this case changed to heat and chemical, and the last, during combustion is changed to heat, electricity and light.

Place the bar upright on end, and let it remain so a few months and gravitative force becomes magnetic. The bar is a magnet. Hammer the bar till it is hot and lay it upon a block of ice. The heat is transferred to the water and the crystallic force is converted to heat. This relieves us of the absurd and clumsy old contrivance of latent heat; to wit, "that heat was absorbed or evolved by diminishing or increasing the attraction of cohesion." Reduce half an inch of the middle of the bar to one-fourth its present size, and pass electric force along it. When the electric force reaches the point of reduction it is instantly converted into heat, light, and chemical force, and if the bar is sawn transversely through the diminished part, and the pieces separated an eighth of an inch, the intensity of the light and heat will be greatly increased. If the bar be suddenly bent at nearly a right angle, back and forth, a few times, it becomes heated at the point of flexion, and separates from loss of cohesion. That is, heat-vibration passes an angle more readily than cohesive; and as force cannot rest, but must pass, or be reflected, it is compelled to become heat, and the bar breaks, of course. To render the bar malleable, or so that it will bend without breaking, heat it slowly, (best by hammering, as it increases the cohesion) until the cohesive force is assimilated, not converted to heat. That is, till its vibration will harmonize with and pass an angle almost as readily as heat. The illustration is by no means exhausted—but we must pass to others.

Place a black cloth and a white, side by side on the snow, where the noon-day sun shines directly upon them, and the black cloth sinks rapidly, while the white remains on the surface. Here the modelling or sun-force is changed to heat in the black, and melts the snow by transfer, and by correllation of crystallic force to heat; while it rebounds, is reflected or revibrated from the white, with little or no change, because its molecular arrangement and resident force is so nearly like that of sunlight as to character and force, that they are mutually repelled like elementary molecules. The snow and cloth are also in nearly the same vibratory relations.

Place a piece of zinc under the tongue and a piece of silver above, and let them touch just beyond the point; and at the instant of contact you will be conscious of a sharp sour taste, and if the eyelids are closed, you will probably perceive a flash of light. Here galvanism is converted to heat and light.—Galvanism and electricity both correllate smell. In combustion, chemical force is changed to heat, electricity, mechanical force, &c., &c. Probably gravitation has the longest and least frequent vibration of any of the forces, as all are so readily correllated to it. It seems to be the sum of all earth's forces, and possibly they are returned to the sun, by it, which would be the great compensating relation of the planetary system. We now recur to our major proposition, that vibration of molecules is the proximate cause of all physical changes or phenomena.

We have seen that sound is merely vibration of matter; the vibrations having been measured; and that it is convertible into, at least one force, (the mechanical) else it could not be measured—and that mechanical force is convertible into every other known force.

We now propose to show, what we have only assumed before, that light and heat also result from molecular vibration. The vibrations of light, like those of sound have been measured. Those of the violet ray, which appears on one side of the prism, are 57,470 to the linear inch, and those of the red which appear on the other side, are only 39,139. The chemical ray which is beyond the violet has more than the violet, and the heating ray which is outside of the red has fewer than the red, while every tint of color between the violet and the red must have its own characteristic vibration, any change of which presents a tint or shade of color. This light force when impinged on the retina, produces a specific vibration, which, reaching the sensorium, causes perception or sight. Any difference or modification of vibration, determines a corresponding difference or modification of color. A blow over the eye sometimes, as we have noticed, causes a sensation of light. That is, the mechanical force is changed in the retina, by its resident force, to the sum of the colors of the prism or to white light; which is the sum of its unities. If there were no eyeball or retina, perception, or sight of objects *might* take place. In somnambulists and clairvoyants, it most unquestionably does occur, without complying with the ordinary conditions and requirements of the organ of sight. If there were no specific visual organs, color would yet exist; *i. e.*, it would produce the self-same vibrations, though, no doubt, the resident force of the organ modifies them more or less, as in cases where persons cannot distinguish between certain colors. That the different vibrations of light, as exhibited by the prism, do in some way and degree change or modify the molecular arrangement of matter, is more than probable, since blind persons can distinguish by the touch, between black, blue, purple, red, and green broad cloths. They could only do this through the impression which the vibrating molecules makes on the fingers.

Light force is probably homogeneous when it leaves the sun, but the vibrations are retarded and thus modified in passing to the earth; mostly in our atmosphere, where heat is correllated. This is the principal or perhaps only source of primary terrestrial heat. Colors are probably correllated by the prism, though some change must have occurred before, as the red side of the spectrum manifests more heat-force than the violet. If retarding electric, mechanical, or chemical force, converts it to heat, then retarding light-force will convert it to heat also, as they are all mutually convertible.

Now as all these forces are mutually convertible into all other forces, and all other forces into them; it follows, that retardation of any force will convert it to heat. Heat then appears to be the result of reducing the number of the vibrations of any given force below 39,000 to the linear inch. The *frequency* of the vibration may modify the result. The cause of retardation is not certainly known, but is probably molecular arrangement. That is, the force impels molecules against each other at different angles. But this is not essential to our present inquiry. Chemical force is constantly being converted to heat. Almost every dissolution of form gives palpable evidence of it; and there can be no question that its vibrations are retarded in passing through different media, since they amount to more than 60,000 to the linear inch, when they reach the surface of the earth. Electric force is converted to heat by retardation, as when in passing along an iron wire it reaches a portion considerably reduced in size or entirely severed. Mechanical force correllates heat as when two sticks are rubbed together, or a cord drawn swiftly through the hand, or a bar of iron is bent suddenly. In other words, friction always develops heat, and friction is only retarded mechanical force. But it is not necessary to multiply examples.

So far we have examined force only in its relations to mineral, or, so-called, inorganic matter. Yet these are the forces on which all the phenomena of vegetable and animal or inorganic life depend. They are converted to vegetable forces by the modelling life-force imparted to the germ, by the parent plant. This force determines the form, size, character, and duration of the vegetable, while the correllated or modelling forces develop its growth and power. Vegetable forces are in a similar manner correllated to animal, through the modelling life-force imparted or furnished to the ovum or germ by the parent. The correllated vegetable forces, and they only, can increase the bulk or growth of the animal. In other words, no force before passing into, or through vegetable life, can cause the deposit of normal animal tissue—can directly impart nutrient properties to matter, or minister to the growth or reparation of the tissues. Vegetable forces are not all nutrients, but none can become nutritious or animalized until they have first been vegetableized. The blood, the plasma of the animal, is the vehicle of all nutrient matter and normal force. The original inherent life or type-force of the vegetable, furnishes to each of its differing elements or tissues, a differing and specific force, and thus united they enter the animal circulation together. The germ-type or life-force is correllated to the original life, type, or germ-force of the animal, while the molecules or particles of matter are deposited in tissue, or rejected as excrementitious. The correllated vegetable forces are converted to nerve force, as the blood-current passes the central ganglions.

Histogeny, in short, is the work of vegetable nutrient force acting under direction of the resident animal, type, or modelling force. The change which takes place in vegetable nutrient matter when introduced to the digestive apparatus, whether resulting from chemical or other agencies, are only initiatory. The mechanical, salivary, gastric, pancreatic, biliary, mesenteric, and other forces merely correllate the vegetable to animal forces, so that the forces of the plasma may be more readily converted to nerve-force. This nerve-force is the power of the living organism, as the steam is of the locomotive. It keeps the organic machine in motion. The inherent, or modelling life-force modifies and makes more or less subservient all other forces entering the organism; but it cannot, of itself, perfectly correllate primary inorganic forces. They must first be converted into vegetable. The more perfectly these vegetable forces are assimilated to the inherent normal nerve-force the greater the vitality of the organism, and the more perfect its functional operations. Imperfect correllation follows imperfect preparation, and causes disorder or disease.—Thus, then, *without* this constant correllation and supply of nerve-force from vegetable forces, no inorganic forces could be made available to the animal economy, nor could the influx of toxical forces be successfully resisted or correllated. With it, they are all more or less so.

When we regard the nerve-fibre as we do the string of a violin, and view its axis-cylinder as a mere medium of vibration, for which its semi-fluid semi-solid condition peculiarly fits it, we shall have little difficulty in understanding the power which a resident normal force, whose vibration was established, and is perpetuated by a type-force, and is itself a type-force, has of modifying the vibrations impinged on the nerve-centres by any other force. Electric, magnetic, chemical, crystallic, and other inorganic forces, and toxical or non-nutrient vegetable forces may have their vibrations changed to some equivalent of nerve-force, that is, to an imperfect chord: and such a state is nominal health, while the harmony continues, as these modified forces will support functional life and waste for a time. If they act with sufficient force to modify or change the normal nerve-force, so as to produce a discord, it is disease. If they act with such power as to convert the nerve-vibration to their own, it is death, for the next change is to chemical force. In other words the *key-note*, or *natural* of life is C, or 1. Now if 1, 3, 5, and 8, are struck at the same time, there is perfect harmony or health. If 1, 4, and 6, are struck the cord is imperfect,—a want of concord, or disorder. If 1, 2, and 7, there is discord or disease—and if 2, and 7 alone, there is the death of harmony. The key-note of life must always be struck, or there is death. Normal nerve-vibration is the *natural* of life, and normal nerve-tissue the key, and nothing but mental and nutrient vegetable force can elicit a perfect chord from the gamut of life.

Forces may act directly or indirectly, or their action may be primary, secondary, tertiary, &c., &c. Echo is the secondary effect of sound-force, and may be repeated indefinitely. A photograph is the secondary action of chemical force—but we must pass on and introduce a force which we have as yet but once alluded to, and that incidentally. We refer to mental force. It is a higher force, having the same relation to nerve-force that this has to vegetable, and that vegetable has to mineral or inorganic. We do not propose to develop our views, if we had any, on the essence of mind. We have introduced its force, only because it plays a very important part in the living economy. Normal mental force is so nearly allied to normal nerve-force that it is in perfect harmony with it. It can add to the resident type-force of the ganglions, and increase its power indefinitely without a discord. So that excessive nerve-action is compatible with normal function, and this condition will continue till some other force strikes a discordant note. A blush from mental emotion is in no proper sense a disorder—it is physiological, but if it was continued till the heat-force correllated, became converted to secretory force there would be swelling, pain, increased heat, and all the phenomena of inflammation—a pathological state.

Mental force is located in the brain, and like the solar or sun-force to the planetary system, it furnishes power or force to the animal system. It is a laboratory of force, and if fully supplied with proper material can furnish an indefinite amount of nerve-force for functional purposes. When the vegetative resources fail, functional life must depend on mental force. The heat, and almost supernatural strength and activity of insane persons is derived from mental force. If mental or brain-force did not furnish a supply, they would soon die; as they sometimes eat little for months and sleep less, and at the same time are in a state of constant physical activity. Even when the supply of vegetable forces have failed, this mental force seems capable of correllating almost any force to its own.

If muscular force is required, the necessary amount is furnished to order. The ganglions pass it through the nerves to the muscular fibre and contraction or shortening takes place, —aggregation of molecules. If the mass to be moved or raised be too heavy for the force supplied, more is sent down instantly, and it is raised as the mind determines. If an unusual and extraordinary amount is suddenly demanded, as in lifting a very heavy weight or leaping a great distance, the nerve-force under direction of mental force, seems to have power to correllate the respiratory, gastric, secretory, and every other functional force to muscular force which is determined to the muscles requiring it.

Mental force has the power to change normal nerve-force to a toxical secretory-force, so powerful, that, introduced into the blood of another animal, it will act as a virulent poison; as in women whose milk has been poisoned by a fit of anger, and in hydrophobia from the same or a similar cause. It can and has arrested and frequently correllated the most powerful toxical and morbific forces, to normal nerve-force; as when persons laboring under great excitement, have been bitten by serpents, and swallowed various poisons without any ill effect; or when prostrated by disease, have leaped from their beds, to escape from a burning building, leaving the disease behind; if the expression may be allowed. It causes the correllation of nerve force to secretory force, as when through excessive fear, the secretory force of the kidneys, large intestines, and skin is greatly increased. It is also changed to chemical force, when from fear, grief, or other emotion, the hair has changed from black to gray or white in a single day. It correllates electric force, as some persons have the power, by a mental effort, to produce such an increase of that power, as to be readily detected by the electrometer. The gymnotus and torpedo seem to possess a similar power, or at least a modification of mental force, by which electricity is correllated.

We will now briefly recapitulate, so that the relations of organic to inorganic forces may be more readily seen.

1. Force is that which moves matter.
2. Force is a unit.

3. Every molecule has an inherent or molecular force.

4. All other force must be derivative, and is furnished by the sun. This may be called modelling force.

5. Every aggregation of molecules is formed and exists by this force.

6. Each mass of matter has its own specific modelling force by which it can change other unappropriated modelling forces to its own specific character.

7. This difference in character is only a difference in length, intensity, time, or angle of vibration.—

8. The modelling force of vegetables is their life force, (derived originally from the first typical form through the germ,) and any inorganic forces which the life force may have correllated.

9. Nerve force is the life force of animals, and consists of the original type-force furnished to its germ, and the various vegetable forces it has correllated from the plasma.

10. Having been correllated from these forces it may be converted to them again.

11. None but vegetable nutritive forces can be changed to perfectly normal nerve-force.

12. All other forces, however introduced are disturbers of the economy;—discords—poisons.

13. Electricity and perhaps all the so-called imponderables, may be forced into or through the tissues, but there is no evidence that they can become normal nerve-force, or pass down or through the axis cylinder of a nerve. The conditions of their transmission are somewhat different from that of nerve force. The vibration of the first is propagated along the nerve periphery, while the last is conveyed through the centre. They may be substituted for and supply the place of nerve force for a brief period, but never perfectly. Life sustained only in part by imponderables, is necessarily and practically in an abnormal state.

14. Different forces have different channels of communication.

15. Each ganglion has its own resident specific force capable of correllating forces adapted to the wants of the organ over which it presides.

16. All forces have reciprocal relations, and are mutually convertible under proper conditions. The proper conditions of crystallic in inorganic forces differ from those of vegetable or organic, and these differ equally, from the animal, and these still more from the mental or spiritual; and each in the ascending series is more complex and varied than the others. But a condition common to all inorganic forces is not lost by correllation, but transferred to the correllating force.

17. Each of these forces—inorganic, organic, and mental, however modified, until resolved into other forces, adhere to the original type-force, and retain matter in the same specific form and impress it with the same character as that of the body from which they emanated.

18. All are directly or indirectly subservient to the economy of the animal—man, *and man is the sun of the action of all these unities, the resultant of all type-forces—inferior animals are the sum of only a part.*

We now direct your attention to the force called heat. The condition in inorganic masses, necessary to the correllation of this force, is retardation. As this condition is unchangeable it follows that heat in vegetables and animals results from the same condition. In physics or mechanical force we can see the point and detect the cause of retardation, but in the animal economy we have been afforded only an occasional glimpse. Claude Bernard says, "it has been known for a long time that cutting the medulla spinalis through, or certain other nerve-trunks, such as the par-vagum, the sciatic, and others, will cause a general or partial but decided diminution of the warmth of the body, but the reverse of this is the case when the great sympathetic is cut through." He also noticed, in cutting through the cervical branch of the sympathetic nerve, which unites the cervical ganglions, that there followed immediately, an increase of heat of the corresponding side of the face, which could be very easily appreciated by the hand, and which was found to be 4° to 6° centigrade higher by the thermometer. When the superior cervical ganglion of the great sympathetic was entirely extirpated, he found the heat increased in intensity, and the circulation of the blood became more active. This increase of heat persisted for several months, without any other pathological change.

These and other experiments go to prove that severing one nerve lessens heat while severing another increases it. The conditions and resident force of the first are not such as to fit it for directly converting other forces into heat. It is one of the principal functions of the last. Irritation, excitement, or increase of force in the first increases the heat, though indirectly. If the converse of this is, as it should be, true, then irritation, excitement, or increase of force in the first cervical ganglion should result in a diminution of heat in the face, and irritation or excitement of the whole ganglionic system, a general coldness or chill. This system composed of ganglions almost infinite in variety of size, form, condition, structure, locality, and force; united by nerve-trunks, wound and twisted and twined, and flexed in a most complex and inexplicable manner, seems to have been continued expressly for the retardation of force or vibration. That it does do so is beyond question. If bending an iron wire retards cohesive force so that it is changed to heat, then flexing a nerve will have the effect of changing nerve-force to heat. This is the cause of the unvarying normal temperature of the human body.

The condition or retarding mechanism of the ganglionic system is almost unchanging, and if the supply of nerve-force is normal, the result must ever be uniform. It is a self-regulating apparatus, a system of compensating relations, each ganglion of which has a specific resident force, which correllates the forces required for the use of its subordinate organ or tissue; as the cardiac ganglion for the heart, and the vaso-motor ganglia for the blood-vessels. But all have the power in a normal state of correllating a certain amount of heat, more or less in different animals, yet always the same in the same species of the same genus and class. And this amount is positive and not permanently contingent on external conditions or circumstances, since a rapid transfer of heat from the periphery to some colder body, only occasions an increased demand, which causes sufficient tension in the ganglia and nerves to retard nerve-force, and correllate more heat than is normal, till the demand is supplied, and thus an almost unvarying amount is perpetuated.

The distinction between animals and vegetables is to be sought, not in a nervous system, though doubtless it is there, but in nutrition. *Vegetables appropriate inorganic forces, animals only vegetable forces.* Doubtless, each class has its own peculiar mode of generating or elaborating heat. The temperature of vegetables is but little above that of their surroundings. So with the lowest forms of animal life. Though no nerve-tissue has been detected in the protozoa, no physiologist will deny its existence. But they are animals, and most, or all of them, Grahamites. The ganglionic system soon manifests itself as we ascend the scale. In the higher radiata it assumes a definite and unmistakeable form.

The germ of the great sympathetic which culminates in man has been developed, and is here first discovered in its simplest form, and with little power to resist or correllate any force. As it becomes more complex animal heat increases; and just in proportion to its complexity and perfection, is the animal rendered self-sustaining, independent of its surroundings, and capable of maintaining an equable temperature. In other words, the heat of both vegetables and animals is derived from correllation of force, by, or in consequence of retardation; but the organism or apparatus through which it is effected, is different in each, so much for normal heat. We are now to inquire into the cause of abnormal.

Experiments prove that compression of the cervical branch of the great sympathetic increases the heat of the face, congestion increases it more, section still more, and extirpation of the superior cervical ganglion renders it still more intense, while it increases the circulation of the blood or the vasomotor force. These are abnormal conditions of organism and and produce one perceptible abnormal functional result, and one only, as the lesion is local. To wit: persistent increased heat. A similar, but general organic disturbance of the sympathetic system, should and does produce an indefinite increase of the general heat, or in popular language, *fever.*

Now any force which, being introduced in the organism, shall, either directly or indirectly inaugurate such an abnormal condition, will cause an increase of heat. And this is the heat of intermittents or fevers. Whatever may be the agent that thus impresses its force upon the sympathetic system, the result is essentially, though perhaps not specifically the same, being modified by the *type* of the force. Almost every toxical agent or medicine which has been tested, produces a perceptible amount of heat, local or general, as is demonstrated by its pathogenesis. But this is only a secondary action. The conditions and functions of the great sympathetic and the spinal systems seem to be not only different, but opposite. The first is the correllator, distributor, governor of the vegetative or growth force of the economy. Possibly, and probably, the last has a higher, and more important mission, while the cerebral is still above that, and in close proximity to the mental and spiritual. However this may be, it is certain that divisions or sections of portions of the spinal system (retardation of force) is followed by diminution of heat, and irritation or excitement by increase of heat. On the contrary divisions or sections of the sympathetic system (retardation of force) are followed by increase of heat, and irritation, or excitement, by diminution of heat, or a chill. The two systems seem to have compensating relations, but only by indirection.

Irritation, excitement, increase of force, is the primary action of toxical forces. The ganglions are impressed with the toxical force introduced to them in the plasma. If it is promptly correllated to forces subservient to the wants of the animal economy, there is only a transient sensation of chilliness with or without perceptible diminution of heat. If only a part is correllated, the balance changes the vibration of the nerve force in some of the axis cylinders, and the diminution of heat will be greater, the sensation of chilliness will be more intense and persisting. If none is correllated, and the toxical force gets possession of a large portion of the axis cylinders, the result will be congestive chill, as it is misnamed. If the amount of the toxical force be sufficient, refrigeration and death ensue. But not in consequence of the want of heat. Unmodified toxical force is incompatible with functional life forces, and if the first prevails the last succumb. If the toxical force gets control of one or more of the ganglions, while the others maintain their normal condition, there will be a partial or local chill, confined to the part supplied with force by the disordered organism. Thus we may have a sensation of coldness or chill, or a real diminution of heat, or both, confined to a place no larger than a dime. The increase and diminution of heat resulting from irritation and excision of the spinal system, is indirect, and does not occur until the disturbing force reaches the sympathetic. It would be illogical to argue that two systems have been devised and introduced into the economy to perform one function. We have thus far based our deductions in regard to chill on the facts, that retarding force in the ganglionic system increases heat, and in the spinal, diminishes it. We will now endeavor, farther to elucidate our idea by presenting the rationale. The irritation, whether mechanical or toxical, increases the activity of the nerve force from centre to periphery. The transmission of nerve force is unimpeded and sometimes pushed to the very verge of normal activity. The heat at the periphery is rapidly imparted to surrounding *media*, and the surface cooled. Internal heat is transferred from the centre to the surface to supply its place. The drain must be met by a prompt supply. Every ganglion is on the alert, and actively engaged in the work of correllating heat from every available force, for its own organ. The forces of the plasma are correllated as fast as presented, but the condition on which the correllation of heat depends is no where present. Vibration is no where retarded—the nerve currents or vibrations pass unobstructed and with unwonted celerity. All the forces are converted to muscular, secretory, and other functional forces. Hence pains and cramps, and vomitings, and purgings, and shakings, and shiverings and coldness. But this state of things cannot continue long. The excited or increased vaso-motor force, impels the plasma towards the ganglions to supply the exhaustive drain; and very soon the periphery is exsanguined. The consequence is what might have been predicted. The ganglions are blocked up and normal vibration impeded. The contortions and flexions of nerve-fibre, add to the general confusion, and finally the crowding of differing forces or vibrations, along the numerous centres of the nerve-trunk, in close proximity, compels a correllation or change of vibration to heat, the result of retardation alone.

Heat-force or vibration, passes, as we have demonstrated, where other and lesser vibrations do not. By a change to heat-vibration, the forces are all readily passed through the obstructed tissues, and those of the plasma are more or less rapidly correllated; at the same time that the supply of forces from the plasma is being slowly withheld or shortened. Now as most of the forces are converted to heat-force, until the axis-cylinders will accept some other vibration, the continuance and amount of heat must depend mainly upon the amount of plasma in the different organs or tissues; and the persistence of the vaso-motor force in supplying the waste. But as the heat vibration is transferred in all directions, to colder bodies at the periphery, and thus, much force is lost. The causes of retardation are finally removed first at the periphery and lastly centrically. The normal nerve-force or vibration is gradually resumed. But before it is restored, all the excess of heat-force and all abnormal forces are correllated to secretory and excretory force, the action of which being in excess, eliminates from the tissues, and forces through the skin or mucous membrane or both an abnormal quantity of non-vitalized matter, chiefly water, and this is SWEAT or diarrhœa, or both, and this is the crisis of the fever. The normal nerve-force resumes its wonted course. The storm has passed. The paroxysm is finished. No pathological condition remains. To-morrow the same cause may produce the same results, and the more readily as its type-force has been once impressed on the nerve-tissue.

ARTICLE VI.—*What is Diphtheria?* By J. DAVIES, M. D., of Chicago, Ill.

It is a blood-poison—prostrating the vital forces, lowering the vitality of the organism, invading every avenue of life with insidious destruction or death, selecting for its local manifestation—the throat—the palate—and nasal cavities.

The term diphtheria is derived from the Greek *διφπερίτης*, signifying "*one clothed in skins*," referring to the false membranes which extend upon the mucous surfaces before named. By the French it is called *diphtherite* which signifies the same as the English diphtheria—the *ite* being exchanged for *ia* in our language. Both terminations expressing inflammation of the parts—in the same manner that *itis* affixed to the root, designates an inflamed condition, as bronchitis—inflammation of the bronchia, &c. The German phrase is, "*Der häutigen Hals-Bräune*," expression of a similar condition to croup, with which disease earlier German writers confounded it.

Like cholera it marks its victim without much warning or ceremony, consigning them to a premature grave in an incredibly short time, even in less than twenty-four hours; or so undermining the health as to subject the patient who has once been the sufferer to a life-long series of minor diseases. It breaks up the fountains of health in the spring time of youth as well as in the advanced periods of mature years. It spares not the rich nor the poor, the mighty nor the fallen, but differing somewhat from cholera, it prefers the weak to the strong, the child to the parent, the infant to the adult, and the debilitated to the robust. Locating itself upon the respiratory organs rather than the bowels, the general region upon which cholera alights, it develops an irritable state of the air passages and mucous membranes of the adjoining parts by throwing out an exudation similar to that which clothes the vine when in a blighted condition, or produces the *rot* in the potato. Like scarlet fever it affects the throat and is very frequently thought to be but a peculiar form of this disease. Its symptoms are very similar. The head aches; flashes of heat pass over the countenance; the tonsils look red and swollen, also the glands of the neck are sensitive and œdematous. At first a slight difficulty of swallowing may be observed. These symptoms naturally impress the patient and friends that a suppressed scarlatina is the trouble. Remedies and counsel are sought to develop it. The Thompsonian steps in and begins to fire up with unmentionable medicaments. His neighbor, the eclectic, would advise specific nostrums. The hydropath prays the patient to be immersed, douched, or nearly scalded. The gold-headed regular insists on administering "*secundum artem*," the stereotyped formulas of the past. The homœopathist recommends the infinitesimals of similia similibus curantur. The kneisopathist follows suit with positive specifics. The movement-cure man desires his patient to march, counter-march, extend, flex, and exercise every muscle of the body. Thus each will fail to assist nature to throw off a disease, if they base their treatment upon a name merely, because the same disease in its premonitory indications may manifest itself differently in different constitutions, and be analogous to other diseases affecting the same parts, as it is in the case of scarlet fever and diphtheria.

The differential signs or diagnosis are, that the ulcerated sore-throat of scarlet fever is mostly confined to the tonsils, upon which there is left an indentation, and the membrane is not so readily detached, while in diphtheria the membrane spreads, or appears in patches over the whole of the mouth, throat, and nasal cavities, and when separated leaves the surface exposed of a deep red, raw appearance. The scarlet fever patient improves, generally, as soon as the eruption fully comes out, while the subject of diphtheria feels the worse when the disease unmistakably develops itself. Like croup it may be ushered in suddenly. The difficult breathing, the croupal cough, the peculiar exudations upon the tonsils and larynx might be easily mistaken for this disease in its spasmodic or true membranous form, were it not that it differs very materially in the color of the membrane formed as well as its chemical characteristics. The light color, the non-fœtid odor of the discharges as a general thing, together with the well known fact that it extends to the trachea, a region seldom if ever, visited by diphtheria, readily distinguishes it from the gray-wash-leather-like deposit and fœtid odor characteristic of the latter disease. The exudations of croup are fibrinous, whilst those of diphtheria are albuminous.

Like a common catarrh, it frequently commences with chilliness alternating with flashes of heat, a sense of tickling in the throat, occasional coryza, sneezing, a discharge from one or both nostrils, slight headache, &c., or in a more intense manner than this it makes itself known and felt in the form of influenza accompanied by general prostration, languor, aching in the bones. Throat affections of a simple character and colds, prevail more or less when diphtheria is present, as much so as painless diarrhœa and bowel complaints when cholera is epidemic, hence, the capital made out of these premonitory symptoms, by unprincipled or ignorant practitioners who construe a common cold, a sore mouth or sore throat to be impending diphtheria.

As there is nothing new under the sun, diphtheria has a claim upon antiquity. If we trace its history we must refer to Egypt, where it is said to have been known to Areteæus, and called by him "*ulcus Syriacum and ulcus Egypticum*, expressive of two forms of the disease as manifest in two localities. It appeared in Holland at Alkmer, in 1557. From the manner in which it caused death in Spain it was termed the *garotillo*. Naples and Sicily were about this time severely scourged with it. In 1635, it appeared at Kingston in Canada, chiefly attacking children. It was epidemic in England from 1745 to 1748, cotemporary with scarlet fever. The first account we have of its appearance in the United States was in 1771, and it has been well described by Dr. Bard, of New-York, who differed in opinion from those who believed it to be croup. In 1818, it was raging in France, and it is to the French writers on this subject that we are indebted for the most accurate descriptions of this disease in its various forms, especially to M. Bretonneau of Tours. In 1856 and 57, it was fatal at Boulogne, as well as in almost every principal town in England. It reappeared in this country about the same time. The dates, the places, and the mortality resulting from its malignant character in these northern states, would require a record of details too lengthy to interest the reader. Most of us are familiar with its appearance at Albany, along the Hudson, and westward, then on the lake-shore cities and villages even to Chicago and its environs.

Its causes.—This is a difficult matter to determine. Some attribute it to defective drainage, want of cleanliness, a scarcity of water, a dry season, others to an impoverished condition of the system, a predisposition to diseases of the air-passages, a want of vitality, ill-ventilated apartments, imprudence in dress or diet, some have supposed it to be caused by an effluvia arising from the decomposition of animal or organic matter, others that it is due to a parasite which enters the blood through the air-passages, and multiplies like fungus, or muguet, or as in mildew.

Whatever may be the primary cause, one thing is certain, that any of the causes enumerated will undoubtedly predispose to this formidable disease, and that to prevent its attack the opposite condition of affairs must be instituted. The body must be well sustained and preserved by an abundance of nutritious diet, suitable clothing for protection and comfort in all kinds of weather. Neither too little nor too much. There must be a free supply of air and water in every apartment to maintain the vitality of the system, and invigorate the body. A thorough system of drainage and cleansing of every nook and corner of our dwellings and streets is absolutely important, when it is epidemic. Mothers will have to learn the folly of exposing the arms of their children, which are so intimately connected with the respiratory organs, the seat of diphtheria, and overdressing the rest of the body. Damp feet are to be avoided, and the chilly night air and sudden transitions from hot to cold rooms. Boys are said to be more liable to it than girls.

Its various Stages.—By some writers five to seven forms are observed, but for all practical purposes *two* suffice to convey its characteristic origin, progress, and termination.

The Simple and the Malignant.—Simple diphtheria often appears without producing any constitutional disturbance. It commences with a slight local irritation in the fauces or throat, scarcely noticeable to the patient, and probably, were it not for its being the topic of conversation, would pass by totally uncared for. On looking into the throat there are to be seen very small elevated vesicles on one or perhaps both tonsils, having a shining appearance, the tonsils are also enlarged somewhat. The color gradually changes to yellow, and the false membranes extend upon the palate, the uvula, pharynx, and sometimes into the nasal cavities. No pain of any note is complained of in swallowing. The submaxillary glands are occasionally swollen and sensitive. A flow of water or saliva is experienced in the mouth similar to salivation in some cases. These symptoms continue from three to ten days, when the patient convalesces.

Simple as this train of symptoms appears to those who have of late felt or seen more or less of them, they may run into the second form suddenly, by the exudations spreading downwards to the bronchial tubes, or it might terminate in malignant type, and which we prefer to designate. True or malignant diphtheria characterized by general prostration of the vital powers, fœtid exudations, a wash-leather-like deposit, a raw, ulcerated appearance of the surface from which the membrane has been detached—the ease with which this membrane separates,—the dark venous color bordering the deposit, its lining the cheeks, the nostrils, and mouth, with shreds or skins in patches,—the general fever all over the body, concomitant with increased pain in swallowing and its special intermittent character, subsiding and returning with more than ordinary virulence, are truly significant of a malignant type of the disease.

Its Treatment.—A host of remedies have been recommended by the profession. The more antique class seizing from the larder salt, mustard, vinegar, pepper, ginger, pork, and probably molasses, to apply externally to the throat, in order to arrest the rebellious diphtheria, whilst internally, acids and alkalies "*secundem artem*" have been administered to neutralize a hypothetical fermentation of the blood.

In diphtheria those remedial agents which have been selected according to the law of *Similia* have proved to be the most reliable among allopaths and homœopaths. Each physician has his own experience to record, and the following cases will better illustrate my own than any further remarks.

Case 1.—Miss B., aged sixteen, had been sick with high fever and general prostration nearly a week before I visited her. Found the cervical and parotid glands exceedingly swollen and highly sensitive to the touch. She complained much of the difficulty of swallowing, headache, and a sense of languor and aching of every bone in the body; had not slept for eight days, nor had a movement of the bowels during that time. Pulse 120, quick and undulating. Appetite gone; great thirst; lips cracked and black; the tongue dry, brown, and swollen; the buccal cavity, fauces, posterior nares, uvula, and tonsils covered with a fetid wash-leather colored deposit, bleeding readily when touched, and as often as it was detached it re-appeared, leaving a raw surface exposed between the shreds of deposit. Had frequently bled from the nose since the attack, and for a few months previous had been subject to "*suppressio mensum.*" On my first visit I prescribed Ars., 1, gtt. x. in ℥ss solution, a teaspoonful every hour, alternately with a powder of Mercurius-iod., 1; directed a strong solution of Kali-chlor. as a wash for the mouth and throat, to be repeated every two hours. On my next visit improvement was manifest. Continued as before. On the fourth day I changed the remedies for Nit.-ac., 1, gtt. x. in aq. ℥ij, and applied Nit.-ac. to the deposits with the mouth and throat. Continued this prescription until the eighth day, visiting her every day as usual. Upon this day a very marked improvement had taken place, which increased up to the twelfth day, when I left her convalescing.

Case 2.—H. M. C., a gentleman of dark complexion, bilious nervous temperament, aged thirty-two, an attorney by profession, had superficial inflammation of the soft palate some two months previous; was attacked with marked chills, sick, depressing headache, alternating with flashes of heat. Throat covered with patches of diphtheritic deposits, highly congested. ℞ Merc.-iod., 1, grs. ij., dissolved in aq. ℥iv., a teaspoonful every hour and a half, alternately with Gelseminum, 1, in the same quantity of water. In three days he was better. But on the fifth day he was much worse through exposure. I found him sitting in his chair with the most despairing expression of countenance. His throat was worse than before; great difficulty of swallowing even cold water; could partake of no solid food;—tongue coated with a white thick fur; the fauces and uvula, the tonsils and soft palate dotted over with wash-leather deposit, and at some points disposed readily to bleed when touched. The general prostration was extreme. I immediately prescribed Nit.-ac., 1 gtt. in aq. ℥ij, a tablespoonful every two hours, and topically applied diluted Nit.-ac. to the parts. Continued this treatment for a week, when I found it necessary to alterate Super-chlorate of Potash, first decimal trituration, with the acid. In two weeks a decided improvement was manifest. Continued the same until the end of the third week, and then applied a few applications of Arg.-nit., administering internally at the same time Apis-mell. and Chlorate Potass., which completed the cure.

Case 3.—Six of a family were attacked with more or less irritation of the throat, difficulty of swallowing, chills, general debility, loss of appetite, and aching in the bones. The youngest being aged eight, a girl of nervous temperament, differed in her symptoms from the rest, in the fact that the nasal cavities were filled with deposit, whilst the tonsils only were affected. In this case I prescribed Merc.-iod., 2, to be alternated with Ars., 6, every two hours, which, in the course of a week, restored her to health. In the other cases I used a solution of Chlorate Potass. and Merc.-iod. with good effect in the course of nine days. Their symptoms being analogous, I need not stop to repeat them;—a perfect resemblance will be found in the provings of these drugs.

I find that nourishing, stimulating diet, with plenty of wine and milk, or essence of beef, are of great service in the management of these cases.

Cantharides, Apis-mell., Nit.-ac., and Potash have been my principal remedies, and with them I have succeeded in every case without losing a patient.

Article VII.—*The Anatomy of the Hard Palate.* By Wm. Tod Helmuth, M.D., of St. Louis.

"The hard palate, which," observes Cruveillier, "serves as a fulcrum for the tongue in the act of tasting, in mastication and deglutition, and in the articulation of sounds," is composed of bone, fibrous structure, and mucous membrane, supplied with arteries, veins, and nerves. It extends from the posterior and internal surfaces of the teeth of the upper jaw, or more properly from the superior alveolar arch to the velum pendulum palati.

The bony portion which forms the roof of the mouth, by its inferior surface and by its superior aspect, the flow of the nares, is composed of the palate-processes of the superior maxillary and palate bones, the former forming about three-fourths of the osseous lamella, the remaining fourth belonging to the palate bones. It is these palate processes which correspond to the *inter-maxillary bones* of the inferior animals, and Mr. Nasmyth uses the following language in reference to them. "These bones serve most importantly to render the upper jaw pliant, during the action of the mouth in the early years of life, and they are also of high account in promoting by their growth, the latitude necessary for the proper arrangement of the teeth, as a means also of preventing concussion of the teeth, they are valuable accessories in the mechanism of the mouth."

The inferior surface of the palate processes of the superior maxillary bone, are joined together by a harmonia suture, which, when the bones are articulated gives rise to the *palate ridge*, which terminates anteriorly in the *nasal spine*, and posteriorly is continuous with a similar though less defined raphè in the palate bones. These processes are thick and strong in front, becoming thinner at their posterior margin, and immediately behind the incisor teeth is found the *foramen incisivum*, or the inferior orifice of the anterior palatine canal. This foramen in the fœtus makes the commencement of the inter-maxillary bones, the development of which are thus described by Mr. Nasmyth.* "In the fœtal skull, at the point of junction of the posterior with the middle third of the foramen incisivum, a fissure may be observed, which passes upward into the anterior palatine canal on each side, and may be traced onward to the floor of the nasal cavity. Having reached the latter situation, it inclines obliquely backwards and outwards for the distance of about a line, and then bends forwards and upwards for the space of two or three lines, to the base of the nasal process of the superior maxillary bones, terminating upon the latter at one or two lines below the ridge for the inferior turbinated bone. If the foramen incisivum be again examined, another fissure will be observed on the oral surface of the palate passing directly outward to the alveolus of the canine teeth, and curving greatly backward in its course. The portion of bone which lies anterior to these fissures on each side, and which supports the incisor teeth is the *inter-maxillary bone*."

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* Late Researches.

The inferior surface of these processes are rough, somewhat uneven, and are perforated by small nutritious foramina. There are also observable some depressions for the palatine glands and a longitudinal groove, sometimes converted into a canal for the passage of the posterior palatine vessels and nerve, hereafter to be noticed.

The Palate Processes of the Palate Bones.—These have likewise, received the name of horizontal plates, and in this as in the former instance, the inferior surface is the portion that enters into the anatomy of the region we are describing, therefore a description of the horizontal plates is all that is here introduced to the reader. The shape of each of these plates is quadrilateral, its internal surface being somewhat thicker than the remaining parts of the opposite side. The anterior part or edge of each plate being articulated, as has been already mentioned, with the posterior margins of the palate processes of the superior maxillary bones. The posterior edge is then for the attachment of the velum pendulum palati, with a sharp projection in the centre of the posterior, nasal, or palate spine, which gives attachment to the azygos uvulæ muscle. At the posterior part of the internal surface of these bones a transverse ridge,—more discernable in some than in other bones—is found, to which is inserted the tendon of the tensor palati muscle, and at the outer extremity of each plate is found a deep groove, which when the bones are articulated, forms the posterior palatine canal, through which important vessels are conveyed to the parts.

Mucous Membrane.—The mucous membrane of the hard palate is continuous with that of the lips of gums and partakes of the same characters. The epithelium is of the compound scaly variety, and is continuous with the cuticle and stratum Malpighii of the skin at the margin of the lips. It is not, however, readily divisible into two layers, but resembles the stratum Malpighii of the skin with the undermost laminæ of the cuticle. It is said by Peasley,* to possess the qualities of endosmose and exosmose.

The *corium* is also continuous with the skin, but is more transparent, softer, and more extensible, though possessed throughout of considerable firmness. It consists, according to both Kolliker† and Peasley, of a single layer of collagenous tissue with elastic fibres, presenting on its outer surface great numbers of papillæ which resemble those found on the skin, generally single, but sometimes double or even multiple. These bodies are so numerous that their bases are sometimes in contact—they average from $\frac{1}{130}$ to $\frac{1}{66}$ of an inch in length and $\frac{1}{600}$ to $\frac{1}{300}$ of an inch in breadth.‡

The *fibrous structure* of the hard palate is very dense, and as we find it in the gum, is intimately blended internally with the periosteum lining the bone, and externally with the oral mucous membrane. This structure has also received the name of the submucous cellular tissue, and is in some parts of a lighter red color than the gum, is thrown into slight rugæ near the aperture of the mouth and has a distinctly marked elevation, or raphe, following the course from before backward of the suture of the palate processes of the superior maxillary bones. With reference to this structure, Kolliker remarks: (Manual Human Histology, Vol. II., page, 3.—) "Connective tissue is the predominant constituent of the submucous cellular tissue, while throughout the proper mucous membrane very numerous elastic elements are every where to be found. * * * * The *elastic* element of the subcutaneous cellular tissue has generally the form of scattered interstitial, and occasionally, though more rarely of spinally convoluted fine fibres."

Glands.—The glands of the hard palate are quite small, and are mostly confined to the posterior half, there being few, if any, noticed anteriorly, they agree in their intimate structure with other mucous glands, which have been described invariably consisting of a number of lobes opening into an excretory duct.

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* Histology, p. 514.

† Manual Human Histology, Vol. II., p. 2.

‡ Loc cit, p. 515.

Arteries.—The arteries of the hard palate are derived chiefly from the third portion of the internal maxillary, the largest of which is the superior or *descending palatine*, which accompanies the large palatine nerve in its canal. When it arrives at the palate, the vessel passes forward in the roof of the mouth, and anastomoses with its fellow of the opposite side, and with a branch that descends from the nose through the anterior palatine fossæ. The other palatine canals are supplied by this vessel as well as the mucous membrane and glands from the roof of the mouth.

Naso Palatine.—After supplying the spongy bones, the outer wall of the nasal fossæ, and the membrane lining the posterior ethmoidal cells, passes through the anterior palatine canal, through which on the roof of the mouth it anastomoses with the descending palatine. Some ultimate ramifications also come from the pterygo-palatine artery. The back portion of the hard palate and the palatine glands receive some blood from the ascending palatine, which is a branch of the facial artery.

Veins.—The veins corresponding with the arteries just mentioned unite in the spheno-maxillary fossa, and there form the *alveolar* plexus, into which are received offsets from the pterygoid plexus and infra-orbital vein, and from it a large trunk receiving the name of the anterior internal maxillary vein, is directed forward below the malar bone to join the facial vein.

Nerves.—The nerves of the hard palate, though belonging to the *spheno-palatine* branches of the superior maxillary, are nevertheless connected in part with the spheno-palatine ganglion or ganglion of Meckel, below which they are divided into several branches, generally those which supply the roof of the mouth and the soft palate also. The first of these is the *large anterior* palatine nerve, which reaches the roof of the buccal cavity through the large palatine canal, and extends forwards nearly to the incisor teeth, where its filaments are joined by those from the naso-palatine. The *posterior palatine nerve* also sends a few twigs to the posterior portion of the hard palate.

The *nerve* of *Cotunnius* crosses the superior portion of the nasal fossa, enters a special canal by the side of the septum, and is there conveyed to the roof of the mouth, where it lies in the centre of the anterior palatine fossa. The nerves of the opposite sides are thus united in the mouth, and are distributed in the mucous membrane behind the incisor teeth, there being connected with the larger palatine nerves.

The *lymphatics* are derived from the mucous membrane of the part we have been considering, accompanying the branches of the internal maxillary artery, and terminate in the deep parotid and cervical lymphatic glands.

ANATOMICAL RECAPITULATION.

Composition.—Bone, mucous membrane, fibrous structure, glands, arteries, veins, nerves, lymphatics.

Boundary.—From superior alveolar arch to the velum pendulum palate.

Bone.	Palate processes of sub-maxillary and palate bones. Traces of inter-maxillary bones of inferior animals. Connected by harmonia suture. Palate ridge. Nasal spine. Foramen insecurim. Depressions for palatine glands. Palate spine (posterior). Transverse ridge for tensor palate muscle. Posterior palatine canal.
Mucous Membrane.	Epithelium of compound scaly variety. Not readily divisible into two layers. Possesses power of endosmose and exosmose. Corium softer and more extensible than the true skin. Consists of a single layer of collaginous tissue with numerous papillæ.
Fibrous Structure.	Dense and intimately blended internally with periosteum, and externally with oral mucous membrane. Rugæ near aperture of mouth.
Glands.	Small and confined to the posterior half; structure, similar to others of oral cavity.

Arteries.	Descending palatine. Naso palatine. Pterygo-palatine.	From third part of internal maxillary.
	And sometimes the ascending pharyngeal artery.	Facial.
Veins.	Correspond with the arteries of the same name, and assist to form alveolar plexus. Empty into facial vein.	
Nerves.	Large anterior palatine. Posterior palatine. Nerve of Cotunnius.	Connected with Meckels ganglia, also branches of sup. maxillary.

Lymphatics.—From oral mucous membrane, and terminate in deep parotid and cervical lymphatics.

Use of hard Palate.—Fulcrum for the tongue in the act of tasting, in mastication, deglutition, and articulation.

Article VIII.—*Clinical Record. Cases from Practice.* By J. S. Douglas, M.D., of Milwaukie, Wisc.

The first part of the following case is given through another medium (Hale's Monograph on Gelseminum), but is repeated here to preserve its connection with the sequel.

November 5th, 1861, was called to visit Mrs. K., in the eighth month of pregnancy. She was the mother of four children, the two last having been born at eight months. Her previous labors had all been exceedingly tedious and severe, continuing from three to six or seven days, apparently from the great rigidity and unyieldingness of the os uteri. During her last labor she had violent puerperal convulsions. When called on this occasion, she had had regular labor-pains for three days; but accustomed to protracted labors, she had not thought it necessary to send for me till she was seized with a convulsion, which was repeated before my arrival. I found the pains quite active and frequent; but on making an examination, not the least result was observable. The os uteri was not in the least developed, but rigid and perfectly closed. With a vivid recollection of her two last labors, at about the same period of eight months, their extreme tediousness, the alarming convulsions, which now bid fair to be continued through a labor of days—perhaps many days,—of all the exhaustive appliances formerly employed to subdue the convulsions, and to stop or hasten the premature labor, and with my attention at the same moment occupied with another case of puerperal convulsions, no one will marvel at my anxiety and perplexity.

On reflection, as all other known means had on former occasions proved so fruitless, I resolved to try the effect of Gelseminum. It might, by its great sedative power, subdue the spasms; it might allay and put a stop to the premature labor-pains. If it failed to accomplish these objects, it might relax the rigidity of the os uteri, and thus facilitate the labor. I gave five drops of the tincture, directing it to be repeated after each spasm; or if no spasm occurred, every hour, unless the pains were abated, or she experienced some of the characteristic symptoms of the drug. After she had taken three doses, I saw her. No more spasms had occurred. The pains were unabated. Directed one drop every two hours. Six hours after the pains were nearly the same; but a very palpable change was effected in the state of the os uteri, which was now soft, relaxed, and sufficiently dilated to admit the finger easily. I had now no doubt that the labor would go on, and from the much more rapid relaxation of the os uteri than on former occasions, would be much less tedious. I left to call again in six or eight hours, or to be notified if needed sooner,—directing a continuance of the medicine. At my next visit the pains were much less frequent and much lighter. No symptoms of the drug. Continued one drop every four hours. On the following day the pains had altogether ceased, and the patient was feeling entirely comfortable. Directed her to take, until her time of confinement, one grain of Macrotin, 3, every night, and the same dose of Caulophyllin, 3, every morning. From this time to January 15, she enjoyed unusually good health, and was actively employed in her domestic avocations.

At this date I was again summoned, and found her in active labor, the pains being frequent and urgent. On an examination, the os uteri was found very rigid, and not sufficiently open to admit a finger, and on using some force to introduce it, it seemed almost perfectly unyielding. Her friends and nurse were already consulting on providing for attendants for the three or four days of expected labor, according to her hitherto uniform custom. She now took five drops of Gels. tincture, and in half an hour repeated it. The pains became of a less distressing character; and on repeating the examination about half an hour after the last dose, I was both delighted and amazed to find the os uteri soft and yielding, and dilated to more than the size of a dollar, and every pain making marked progress. The labor went rapidly on, and in two hours and ten minutes from the time of my entering the house, and just about one hour after taking the last dose, she was delivered of a good-sized, healthy male child, to the unbounded delight and astonishment of all present. I should have said, that she had been in labor but about one hour when I was called. For several days after her confinement she felt unusually well.

On the 9th February, I was called to see a child that was seriously ill, and found her complaining of rheumatism of the back and right leg, which rendered it difficult and painful to move. She said it was brought on by exposure for two nights, in attendance upon the sick child. She was sitting up, taking charge of the child, and declined to have anything done for herself till the child should be better. The next day I found her unable to leave her bed; was suffering severely, and had had no rest during the night. On examining the limb, I found a fully developed case of phlegmasia alba dolens,—the limb being very nearly, by measurement, both above and below the knee, twice the circumference of the other, and with all the characteristics of milk-leg. The pain was severe in the back, pelvis, and groin, as well as in the leg. She was directed to take one-drop doses of Hamamelis tincture every four hours, and the whole limb was enveloped in cloths wet in warm water, to which the tincture of Hamamelis was added in the proportion of half an ounce to the pint, over which was a wrapper of flannel. During the first twenty-four hours there was no observable change. After this the pain and swelling rapidly abated. On the 14th there was none of the peculiar, hard, elastic swelling remaining, and little tenderness, except along the line of the principal veins, which could still be traced as a hard cord. The limb was contracted, and could not be straightened. The same treatment was continued. On the 18th she was able to walk without pain, though, from the contraction of the limb, she could not bring the heel to the floor. The foot and ankle are moderately œdematous. Omitted the Ham. internally, and gave Ars.; but continued the external application by daily friction with the solution. By the 21st the limb was straight, and the œdema had disappeared. On the 30th she walked half a mile from home, was walking about for a considerable time, shopping, and then walked home again without inconvenience. From that time she has continued her usual domestic avocations, being nearly all the time during the day on her feet, without trouble.

This is the first case of milk leg I have had occasion to treat since the properties of Hamamelis have been known; but I have advised the same treatment of a case in the country, and a medical friend has given me another with the same treatment. The result in all has been similar, proving the efficacy of this drug in inflammation of veins.

ARTICLE IX.—*Clinical Observation.* By A. LEON, M.D., of New-York.

Mary ——, aged twenty years, of a nervous bilious temperament, came under my care about a year ago, with the following symptoms: General appearance anæmic; unable to take the least exercise without panting; it was with the utmost difficulty she could ascend the stairs; violent palpitation of the heart, with blowing sound; frequent pains in the head, extending downwards to the shoulders; subject to colds, and pains in all her limbs; pulse 100, feeble, and disappears under pressure of the fingers; total want of appetite; sleep restless, being obliged to get up three and four times during the night to pass her urine, which amounted to a gallon during the night. The urine of this patient was not analyzed, but tasted sweet and was perfectly clear. There was much debility and emaciation, though she was much bloated and puffed. Her menses were regular as to time, but colorless. Bowels rather inclined to diarrhœa.

I commenced the treatment with Phos.-acid, 3, three times during the day, and continued it for two weeks, with some slight amelioration of her symptoms. The urine became less in quantity, but not changed in quality. Other symptoms about the same. I then gave her Ars.-iod., 3d trituration, morning, noon, and night, and continued the remedy three weeks, with marked improvement to her general health: menses appeared to have more color, and her bloated appearance had disappeared in a measure; her appetite had returned somewhat; the urine had diminished one-third, but still tasted sweet. I discontinued the Iodide of Arsenicum, and substituted Scilla, 3d dilution, one drop three times a day, which completely restored her. The urine gradually diminished under the use of the remedy, lost its sweetish taste, and she slept well all night without being compelled to get up. Her general health at this time was perfectly good. I saw her a few days since, and found her perfectly well.

ARTICLE X.—*Cases from Practice.* By JOHN C. MORGAN, M.D., of Lebanon, Illinois.

CASE 1.—Charlie F., aged three years, had chills and fever; paroxysm commencing at noon, with catarrhal symptoms. ℞. Merc.-corr., 3, a single dose at the onset. Cured by two two doses. A consecutive diarrhœa was removed by Cham., 3, every two hours.

CASE 2.—Mr. C., aged twenty-five, had a herpetic eruption on the right leg, with swelling and great itching. ℞. Rhus-tox., 3, every night, and Merc.-cor., 3, every morning, for four days. On the fourth day had an ague paroxysm;—took no medicine;—had no return. On the ninth day the eruption was much better, but not well. Neglected to take anything for some time;—afterwards Arsen., 3, twice daily, eight doses.

No benefit,—the leg being swelled and scurfy. Took Sulph., 3, Merc.-c., 3, night and morning, eight doses. Cured.

Case 3.—A delicate young lady, liable to exposure, had amenorrhœa, or rather, *deficient* menstrual flow. Eight doses of Chin., 3, Bry., 3, (night and morning) brought on a free discharge.

Case 4.—A delicate lady, seven months pregnant, had ulceration of the tongue, and soreness of the gums, making mastication very painful. ℞. Carbo-veg., 6, Merc.-corr., 3, every three hours, for four days. Cured.

Case 5.—A *robust* brunette lady, not known to be pregnant, had ulceration and soreness of the mouth. Cured, in a few days, by Merc.-c., 3, every three hours.

Case 6.—A lady (married) of feeble constitution, had, as often before, a violent neuralgia, affecting the side of her head, face, and neck, for which she took, with benefit, successively, China, 3, Coff., 3, and Nux-v., 3. The malady not being fairly subdued, however, I gave Gelsem., 1, every two hours. Much relief: but next day a moderate exacerbation. Gels., 2. Improving. Next day, and thereafter for several days, a daily dilution. Perfectly and permanently cured.

Case 7.—A methodist preacher, long subject to neuralgia of the jaws, returning from conference, was detained by an attack. Pursued the same treatment as before, *diluting at every exacerbation* (three or four times in twenty-four hours). Recovered in one day, and rode home, twenty miles, declaring his lasting gratitude for the discovery of a remedy so potent.

Case 8.—Miss F. W., aged eighteen, had a chill and fever in the forenoon of November 20, 1861. Took Gels., eight drops in a glass of water, a teaspoonful every two hours. Had another paroxysm (medicinal aggravation!) in the afternoon. Remedy continued two days without change. No recurrence.

Case 9.—Miss H., aged thirteen, delicate, pale, quiet, feeble, had fever daily at noon; lips and nose sore. Cured promptly by Merc.-c., 3; afterwards Puls., 3, night and morning. Also the latter on the 5th, 13th, and 21st days as a preventive.

General Record of Medical Science.

Phosphoric Paralysis.

We extract the following interesting facts from the *L'Art Médicale* of April, 1862:

"I wish," says the author, Dr. Gallavardin of Lyon, "in this essay to call attention to one of the numerous *elective* actions of Phosphorus—viz., that which it exercises upon the muscular system,—upon the nerves of motion. I have demonstrated this *elective* action by experiments upon the healthy and upon the sick. In my researches upon the subject I find in allopathic publications: 'eleven cases of paralysis cured by Phosphorus;' 'three cases of paralysis produced by Phosphorus.' And in homœopathic publications: 'one case of paralysis cured by Phosphorus;' 'a great number of paralytic symptoms produced by Phosphorus.'

"This double experience confirms our faith in the therapeutic law, '*Similia Similibus Curantur*,' since the arguments are derived from its adversaries as well as from its friends."

I. CASES OF PARALYSIS CURED BY PHOSPHORUS.

"CASE 1.—Paralysis in a young girl, of two years' duration, cured by Phosphorus administered internally." (Dr. Frank de Langsberg, *Journal de Médecine Pratique de Hufeland*, July, 1824, p. 112.)

"CASE 2.—*Hemiplegia in the right side*, in a young girl who had suffered from amenorrhœa. The malady had lasted many years, and was cured in one week by frictions with a phosphoretted liniment." (*Targione Tozzeti, Journal de Litterature, Sciences et Arts de Pise*, 1809.)

"CASE 3.—*Paraplegia* in a Russian officer, aged twenty-nine years, cured in six weeks by the use of Phosphorus internally and externally." (Dr. Gumprecht, *The London Medical Repository*, March, 1815.)

"CASE 4.—*Paralysis of both arms*, in a Russian militia officer, following an attack of gout,—and cured by phosphoretted ointment." (*Loc. Cit.*)

"CASE 5.—*Paralysis* in a young girl, cured by means of frictions with a liniment containing only one grain of Phosphorus. One grain of Phosphorus internally each day for three days caused a recurrence of gastrodynia and hæmatemesis, without affording any relief to the paralytic affection." (*Bibliotheque Médicale*, 1813, XXXIX., 269.)

"CASE 6.—*Paralysis of the arms, legs, and the sphincters of the anus and bladder*, in a woman of Berlin, after an attack of apoplexy, cured by Phosphorus administered in Sulphuric ether. Some time afterwards this patient died of apoplexy." (*Bibliotheque de Therapeutique de Bayle*, t. III.)

"CASE 7.—*Paralysis of the third pair of cranial nerves.*"

"CASE 8.—*Paralysis of the sixth pair of cranial nerves.*"

"CASE 9.—*Paralysis of the muscles of the eye, cured with preparations of Phosphorus.*"

"CASE 10.—*Paraplegia with œdema of both limbs, sequence of typhoid fever*, in an aged woman, cured by Phosphorus."

"CASE 11.—*Paraplegia and paralysis of the vesical sphincter*, with œdema of both limbs, sequence of an acute malady, in an infant, cured with Phosphorus." (*Gaultier-Claubry: Journal generale de Medecine*, 1803, XVI., 6.)

"CASE 12.—*Paralysis, with œdema of the right leg*, sequence of an acute disease, in an infant, cured with *Phosphorus*. (*Pd.*)

"CASE 13.—*Paraplegia* cured with Phosphorus."

The following case of paralysis, cured by Phosphorus, is extracted from a German homœopathic Journal:

"CASE 14.—Madam P., aged thirty-six years, soon after her marriage, was attacked with a paralysis of her lower extremities. For a period of three months many remedies were tried at the hospital of Gœttingen without result. The limbs were powerless, rigid, cold, and insensible. The back was also rigid, and at a certain point near the sacrum, there was no sensibility. She often experienced a tearing and formication in the back, extending into the limbs. The other functions were normal. After two doses of Sulphur, 12, she took an alcoholic preparation of Phosphorus, 2d dilution, ten drops every two days. After the fourth day from the employment of the remedy, she was able to walk with the aid of a cane, and without any other aid she was completely cured of her malady. (Dr. Engelhard, *Allgemeine homöopathische Zeitung*, 1854, 47th Vol., p. 172.)

II. CASES OF PARALYSIS CAUSED BY PHOSPHORUS.

"CASE 1.—Paralysis of the left arm. Ch. E. Dieffenbach, druggist of Biel, wishing to make an experiment with Phosphorus, took three grains in six days. Powerful and continual vomitings, spasmodic contractions, *paralysis of the left arm*, delirium. Such were the symptoms which presented themselves, and to which death put an end." (*Nouvelle Bibliothèque Médicale*, 1829, t. 2, p. 98.)

"CASE 2.—*Paraplegia, convulsions, then paralysis of the erector muscles;* progressive, general paralysis, produced by Phosphorus."

"CASE 3.—*Paralysis of the hands*, produced by Phosphorus. A woman made several ineffectual attempts to destroy herself by taking Phosphorus, in 1851. She did not accomplish her object, but survived with a *paralysis of both hands*." (*Annales d'Hygiène publique et de Médecine légale;* 2d series, 1855, p. 157.)

By consulting the various homœopathic works on materia medica, the medical man will find a very large number of paralytic symptoms produced by Phosphorus. Hahnemann and his disciples recorded numerous phenomena of this kind, from attenuated as well as from crude doses of the drug.

Numerous convulsive symptoms have also been recorded in the pathogenesis of Phosphorus. In fatal cases of poisoning by Phosphorus, death is often preceded by strong convulsions, and sometimes by delirium.

The Language of Light and Infinitesimal Doses. Bunsen and Kirchoff's Discovery.

OPTO-CHEMISTRY, OR SPECTRAL ANALYSIS.—A great scientific discovery, to which some of the above titles have been given, has recently been made in Germany. Its importance demands that we shall not overlook its claims to the attention of homœopathists, though the extensive discussions to which it has already given rise can not properly be transferred to our pages. We will proceed to draw from different contemporaries a condensed summary of the principles and facts set forth by the discoverers and endorsed by the scientific journals of Europe.

Condensed Exposition of the Subject.—"Every one knows," says Dr. Ozanum,* "that when a ray of the sun is received on a prism in a dark room, the light expands like a fan, and forms a rain-bow with seven colors, which goes by the name of the *solar spectrum.* Now, if you notice the solar spectrum attentively, you will see it scored by a multitude of lines, some dark, others bright, always situated at the same spots. These are 'Frauenhofer's lines,' named after the scientific optician of Munich who discovered them. He studied them carefully, and distinguished the eight principal groups by the eight first letters of the alphabet, for the purpose of indicating them. At first he made out 600, but afterwards Brewster was able to count 2000,—having sharpened his vision, they say, by ammoniacal gas, which dissolves the mucus spread over the surface of the eye."

We now pass over the preparatory steps by which other philosophers prepared the way for the greater results of the Savans of Heidelberg. The last of those who gave important hints at a possible discovery, lying still concealed in the future, was the Abbé Moigno, who in 1850, in his Repertory of Modern Optics, thus broached the idea of a general method of spectral analysis: "With a little experience we shall succeed in making, by the observation of the lines, an analysis, if not quantitative, at least qualitative of the most complex combinations of very dissimilar metals."†

Science had progressed so far and no further, when in December, 1859, Bunsen and Kirchoff announced to the *Academy of Science* at Berlin that they had studied the spectra of artificial flames with great care, and had arrived at the explanation of Frauenhofer's lines, and had reached some conclusions respecting the constitution of the sun and stars. These conclusions, they say, are based on the following general facts: 1. Every metallic substance in the volatilized state, in a luminous source, colors in a definite manner one or more of Frauenhofer's lines. 2. Those colored flames which have a very marked emissive power for certain particular rays, act upon those same rays when coming from other sources in the way of elective absorption, so as to produce blanks or dark lines in the place of those luminous colored rays, which ought to exist in the spectrum; thus, for example, the brilliant red line produced by the chloruret of lithium in the spectrum of a gas flame changes into a dark line when that flame is traversed by the direct rays of the sun. The continued spectrum of Drummond's light (lime, incandescent in the flame of oxy-hydrogen gas) presents the dark line D, when its rays are traversed by the flame of salted alcohol. As for the electric light, that double line appears also in black under special circumstances, which are perfectly ascertained since 1850 by M. Foucault; it is when the vivid light of the charcoal points is mingled with the feebler light of the voltaic circle.

By the discovery thus announced by Bunsen and Kirchoff, it is claimed that the powers of chemical analysis have been widely extended; that two new and hitherto undetected metals have been brought to light; and that a number of elementary bodies have been discovered in the body or surface of the *sun* around which our earth annually revolves. By their simple mode of examining colored flames by means of a prism, the constituent parts of the incandescent vapors are fully analyzed, separated, and made thoroughly distinct; different substances, as sodium, potassium, lithium, calcium, strontium, barium, &c., each produce and communicate a *distinct spectrum* of peculiar form and tint.

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* *L'Art Médicale*, January, 1862, p. 60. † Tom. III., p. 1224.

As an example, says Professor Roscoe, "of the exactitude with which a small quantity of a most complicated mixture can thus be analyzed, we give Bunsen's own words: "I took a mixture of chloride of sodium, chloride of Potassium, chloride of lithium, chloride of calcium, chloride of strontium, chloride of barium, containing at most $\frac{1}{10,000}$ part of a grain of each substance. This mixure I put into the flame and observed the result. First the intense yellow sodium line appeared on a back-ground of a pale continuous spectrum; as this began to be less distinct, the pale potassium lines were seen, and then the red lithium line came out, whilst the barium lines appeared in all their vividness. The sodium, potassium, and barium salts were now almost all volatilized, and after a few moments the strontium and calcium lines came out, as from a dissolving view, gradually attaining their characteristic brightness and form "

"We can thus detect the most minute traces of any one of these bodies, if mixed with the largest quantities of any other substance. The delicacy and accuracy of these re-actions is without parallel, and is seen from the following statements:

"1. Soda. $\frac{1}{180,000,000}$ part of a grain of soda can be detected. Soda is always present in the air. All bodies exposed to air show the yellow sodium line. If a book be dusted near the flame the soda light can be seen.

"2. Lithia. $\frac{1}{100,000}$ part of a milligramme, or $\frac{1}{60,000,000}$ part of a grain of lithia can be detected. Lithium was known to occur in four minerals. It is now found by spectrum analysis to be one of the most widely distributed elements. It exists in almost all rocks; it has been found in three cubic inches of sea, river, and Thames water; in the ashes of tobacco, and most plants; in milk, human blood, and muscular tissue." Ordinary analysis can not discover this metal in a quart of mineral water; the opto-chemical process *can detect it with certainty in one drop.*

"3. Strontia. $\frac{6}{100,000}$ of a milligramme, or $\frac{1}{1,000,000}$ parts of a grain of Strontia can easily be detected.

"4. Lime. $\frac{1}{100,000}$ of a milligramme, or $\frac{1}{1,000,000}$ of a grain of lime may be easily detected."

Analysis of Sunshine, and of the Sun's Material Substance.—An English provincial judge, who has some reputation for carricaturing a certain order of *Americanisms*, has represented a descendant of the Puritans as expressing the "belief that *there is alcohol in moonshine;*"—we believe, however, that no analysis by transcendental chemistry has yet rendered the subtle spirit tangible to human perceptions. But here is a bolder adventurer, who steps beyond the moonshine, and the moon from it is reflected,—analyses the bright sunshine in the central fountain from which it flows forth, and thus reveals the chemical constitution of the surface of the sun. We quote the main result reached by Kirchoff in his own words: "The sun consists of a glowing gaseous atmosphere, surrounding a solid nucleus which possesses a still higher temperature. If we could see the spectrum of the solar atmosphere without that of the solid nucleus, we should notice in it the bright lines which are characteristic of the metals it contains. The more intense luminosity of the internal nucleus does not, however, permit the spectrum of the solar atmosphere to become apparent; it is *reversed* according to my newly-discovered proposition ; so that, instead of the *bright* lines, which the luminous atmosphere by itself would have shown, *dark* ones appear. We do not see the spectrum of the solar atmosphere itself, but a negative image of it. This case, however, with an equal degree of certainty, serves to detect the metals in the sun's atmosphere. All that we require for this purpose is a very accurate knowledge of the solar spectrum, and of the spectra of the individual metals."

"Kirchoff is at present engaged in continuing these observations ; and although only eighteen months have elapsed since the first discovery was made, he has already mapped more than seventy lines in the solar spectrum, between D and E, which are produced by iron. He has shown that the well-known group in the green, known as B, is caused by magnesium, whilst other coincident lines prove the presence of nickel, chromium, potassium, and sodium in the solar atmosphere."

For his experiments Kirchoff made use of Steinheil's apparatus. This is a small triangular camera obscura, in the centre of which is a prism of flint glass, or of hollow glass filled with bisulphuret of carbon—a substance of high refracting power; at the three sides of the camera are three lenses, one furnished with a collimator, having a linear slit, directs on the prism the light which has to be analyzed; the other, almost opposite, magnifying four diameters, is destined for the eye of the observer; the third, placed sideways and illumined separately, is destined for the micrometer, which serves to measure the specific lines. The metallic spectrum is procured with Bunsen's hydrogen gas lamp, or "illuminating lamp."

"When little light is given, all the secondary lines disappear, whilst the principal one is detached on a black ground. But to analyse the metals, we have to employ the electric light furnished by Rumkorff's apparatus of induction."

Dr. Ozanum says :* "Kirchoff has found that the rarest metals, as *erbium* and *terbium*, are recognized without difficulty; and, what is remarkable, that the lines characteristic of each radical element are always identical, whatever be the chemical combination of the metal, and whatever be the flame in which it is heated. This is, no doubt, owing to the fact that all the salts under examination are decomposed at that high temperature, and reduced to the state of a vapor purely metallic; but the intensity of the lines increases with the temperature of the luminous source."

Analysis of the atmosphere by the newly discovered process has already furnished to science new and unexpected results. "In a room of sixty cubic metres, a mixture of sugar of milk and three milligrammes of chlorate of soda was burnt at the opposite extremity to where the flame was furnishing the spectrum; the vapors spread through the air, and at the end of a few minutes there appeared the yellow line of sodium, which remained ten minutes and then disappeared. Now, according to the contents of the room and the weight of the salt employed, analysis indicated, that in that case the eye could easily detect the spectral re-action of a three-millionth of a milligramme of soda." In studying the atmospheric spectrum, we discover that "more than two-thirds of the earth's surface are traversed by currents of chloride of sodium, whose impalpable powder impregnates the air that passes over the ocean. Without doubt, this salt is destined to furnish to infinitely small creatures conditions adequate to their preservation." "Perhaps also," as Kirchoff remarks, "the dissemination of this antiseptic substance is our preventative of epidemics. It would at least be curious to observe whether variation in the brilliancy in the N. A. does not bear some relation to the different phases of an epidemic; or again, whether contagious miasms may not be revealed by means of perturbations induced in the lines of the atmospheric spectrum."

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* *L'Art Médicale*, January, 1862.

Discovery of New Metals.—By the optical analysis M. Bunsen has effected the isolation of two new alkaloid metals, called *rubidium* and *cæsium*,—both more powerful than *potassium*; and M. Crookes has added another, called *thallium*; and Van Kobell added another in March, 1860, to which the name *dianium* has been given. In the discovery of *cæsium* M. Bunsen evaporated eighty tons of the water of the salt spring of Dürckheim.

The influence of this new mode of analysis on all the physical sciences can scarcely be conjectured. Hereafter a chemistry that cannot deal in *infinitesimals* will be obliged to confess that its acquirements and resources are behind the times. The quantity of some mineral poisons sufficient to produce fatal results is so minute, that in many criminal cases chemical analysis has failed to demonstrate their presence. Henceforth the poisoners by means of minute doses will hear of opto-chemistry with terror. Medical jurisprudence has often felt the want of better medical testimony than it could command. Now, when a witness has been found that *knows more* and can *tell it*, let law as well as science have the benefit of her testimony.

Among the results of experiments made by Dr. Ozanum, which show the power of opto-chemical analysis to detect medicines in certain states of attenuation, we shall select a few specimens: "An infinitely small fragment of a drop, collected on a platina wire as fine as a hair, bent into a loop at the end, was exposed to the flame. This fragment of a drop, appreciable by very delicate scales, was found to weigh half a milligramme. It was, therefore, the 10,000th part of the entire dilution. Now, not only with so minute a quantity did the specific line of lithium appear in the second dilution, but it was also perfectly visible in the third dilution, and easily verifiable by any one; afterwards in the fourth dilution also."

After presenting more fully the wonderful results of experiments on chloruret of lithium in different degrees of dilution, M. Ozanum says: "I can now bring forward a fact for the consolation of those who believe in the too easy alteration of homœopathic remedies. Each of the dilutions which we examined was acidulated with a drop of hydrochloric acid, in order to facilitate the experiment; and for all that the lithine appeared with all the regularity of its proper nature. That infinitesimal quantity was not in any respect influenced by the presence of an acid in a dose proportionately so colossal!"

The discovery of Bunsen produces a true revolution in the method of analysis, "giving an importance hitherto unknown to infinitely small quantities." The discovery of the therapeutic doctrine of the action of infinitesimal doses by Hahnemann "forestalled and predicted that of Bunsen;" Hahnemann raised medicine to the level of other sciences by creating for it a method analogous to that of the infinitesimal calculus ("limiting ratios") in mathematics, the atomic and molecular doctrine in chemistry, the theory of the ether in natural philosophy, the cellular theory and microscopic studies in normal and pathological anatomy. Nor did this *novum organum* remain in his mind a state purely speculative; for he used to cure the sick with doses of which the most profound science is now scarcely beginning, half a century after that genius, to recognize the presence and to suspect the value.

We pass over for the present, the highly important results obtained in the "Analysis of Gaseous and Volatile substances," though satisfactory evidence is given that the analyses of these substances have sustained all that was promised by the former experiments: the facts now collected "suffice to show us, not only that the triturations and dilutions are trustworthy preparations, but also that they *tend to fix volatile substances and odoriferous emanations in the substance of the inert body, which serves as their vehicle.*"

The discovery of *opto-chemistry* is now established as a physical fact, which marks an epoch in the history of science. Already the composition of the sun's surface has been subjected to a critical analysis, and the distant stars and planets are the objects of chemical research. Time and space have already been obliterated from the list of obstacles, "to perfect knowledge of the boundless skies."

"What signify then," says M. Foucault, "the thirty millions of leagues which separate us from the sun? Each substance, reduced to vapor, vibrates, like a harp-string with a sound peculiar to itself, emitting its rays into space like luminous notes of unutterable tone, capable of traversing the greatest distances. The prism expands his innumerable rays in the spectrum: they are so to speak, numbered in order; and if they contain signs characteristic of substances known amongst our elements, the inference is inevitable: those substances necessarily belong to the Sun."

Such is the new discovery which is just now being brought to bear in analysing, more accurately than common modes of research had ever done, the medicinal waters of European springs which are known to have curative powers. though the chemist could find nothing in them. The popularity of the "purest" mineral waters has rendered the purest water every where more popular. Hence it is said that about seven-tenths of all the medicine prescribed in Europe, may be said to be through the direct assistance of medicinal waters. It now appears that these purest mineral waters contain minerals before unknown, but is a *high degree of attenuation.* "In order to obtain sixteen grammes of Cæsium, it is necessary to use the solid residue of twenty tons of the minerals waters of Kreuznach." It would not have been discovered except by the aid of Bunsen's discovery.

Of this discovery, M. Dumas lately said "that the physical sciences have not made a happier effort since the days of Lavoisier." Another says: "The dawn of a new stellar and terrestrial chemistry has been announced, and it opens out for investigation a bright prospect of vast fields of unexpected truth." Every victory gained in fields that reach out towards the *infinite,* must bring new tributes into the treasury of homœopathy; for *her kingdom lies out in tha direction.*

Antagonistic Effects of Belladonna and Opium.

In the American Journal of Medical Sciences we find an article on this subject by Dr. C. C. Lee. In illustration of the action of these two poisons as antidotes to each other, he gives the following cases:

A child aged six years, took by mistake for syrup of rhubarb, a drachm of a concentrated preparation of Belladonna (known as *Succus Belladonna,*) only designed to be used in collyria. "The characteristic symptoms of Belladonna were almost immediately apparent; the child's face became scarlet, and it tottered insensible to the floor. I was immediately sent for, and found the flush on the face deepening to a violet hue, the eyes fixed and staring, the pupils dilated to their utmost, tongue dry, pulse slow and bounding, and the child almost comatose. No stomach-pump was at hand, and I at once resolved to test he efficacy of opium. Twenty drops of Laudanum by the mouth, and the same quantity by the rectum, were simultaneously given, and at intervals of a half-hour the doses of twenty drops were repeated until the little patient had taken one hundred and twenty drops in all. After, the third dose, the pupils began strongly to contract, the purple hue of the face to fade, and in three hours the child was well and running about the room.

"The second case was one of *Opium poisoning*, occurring in a child, aged two years. The quantity of Laudanum taken could not be ascertained; for the mother, who had given the drug, (as was supposed for the purpose of infanticide,) obstinately refused to answer any questions on the subject.

"Enough, however, had been swallowed to render a fatal prognosis almost positive. The skin was pale, cold and clammy, pulse feeble, and beating only forty to the minute, respiration slow and laborious, pupils excessively contracted, and coma profound. A galvanic battery was sent for: but when obtained it was so out of order as to be useless.

"Some tincture of Belladonna, however, was at hand, and was instantly given in doses of fifteen minims, repeated at intervals of twenty minutes until four doses were taken. The first perceptible change was after the second dose, when the temperature of the skin rose several degrees; this was gradual, but was distinctly felt by the hand."

After the third dose, the child opened its eyes when spoken to, and showed signs of intelligence. About an hour after the fourth dose, "the child was to all appearances well."

These cases certainly show that these two deadly poisons possess the power of antidoting each other. *Both* are regarded by men of every school as powerful *Narcotics*, producing effects, though differing in minute particulars, yet so far *similar* in many others, that, *practically*, each is so nearly a *similimum* in cases of poisoning by the other, it becomes a partial, if not complete antidote. In each of the cases given by Dr. Lee, we see in each that the alarming symptoms of poisoning disappearing under the use of the antidote. And we also see that the antidote is a *specific homœopathic* remedy in the case where it is needed, though used in doses which in another case where no such *similar* poison was to be counteracted, would have been poisonous. A forty-drop-dose of laudanum given at once to a child six years old, and followed with other doses of twenty drops, repeated every half-hour until one hundred and twenty drops are taken, would certainly develop alarming, even fatal symptoms in a very short time, if not antidoted at the time by some other equally powerful agent.

That Opium is an antidote to *many* of the worst symptoms of Belladonna poisoning has been long known to homœopathists. "Opium," says Hahnemann, "appeases the paralytic symptoms, and the pains caused by Belladonna, though only antipathically and palliatively. Small doses of Opium probably removed the somnolence caused by Belladonna." He says, "the stupor, mental derangement, and rage caused by Belladonna," are most speedily relieved by "small doses of Hyoscyamus; the intoxication yields to wine."* It is certain that Opium and Belladonna in small doses neutralize each other. Their antagonistic powers in large doses, were first pointed out by Dr. Joseph Anderson, of Edinburgh.

M. Malgaigne on Great Hospitals.

DURING nearly two hours the Academy of Medicine on the 2d of April, listened with attention to a discourse by this celebrated Surgeon, his language, at one time vibrating with emotion, at another cutting with sarcasm, but ever rich and wonderful in its flow. During this long improvisation not the slightest hesitation occurred. His interrupters had but little chance with him; with a word he transfixed and reduced them to silence. M. Trébuchet and M. Briquet were never exposed to such a tempest of burning and ever cruel apostrophes. The whole Academy was full of emotion, and in transport his memorable oration was overwhelmed with applause. Happily, also his eloquence was engaged in a good cause. He tore to rags the veil with which Optimism had tried to cover the mortality in the Parisian hospitals. He traced a lamentable picture of their fatality. Surgery he exhibited losing fifty per-cent of its patients operated upon: in the medical wards, death carrying off one patient in every eight; and in the maternity hospitals sometimes one in five. He drew a striking picture also of Lariboisiere, where so many millions (of francs) have been spent in splendid colonades, in elegant arcades, in an immence reception-court, (which is not even available as a promenade for the sick,) and in a vast chapel covered with gilding! "It is," he said, "le Versailles de la misère: its luxury is a scandal." In this monumental hospital, which strangers visit, and which we are proud to show them, death reaps an enormous tribute, greater than elsewhere: it is of all hospitals the most deadly. M. Malgaigne maintains that in London hospitals the mortality in cases of operation is thirty per-cent. and fifty per-cent. in Parisian. The slight improvement which has recently taken place in Paris he attributes to improvement in the diet of patients, not to any improvement in the sanitary state of the hospitals. The mortality after operations he unhesitatingly attributes to overcrowding of the wards, to the large size of hospitals, and to large wards. "These enormous Asylums for the sick are focuses of death. Build no more large hospitals. Avoid this crowding together of the sick."—*Dublin Medical Press.*

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* Materia Medica, Vol. I., p. 491.

Brass Founder's Ague.

This disease has been investigated by Dr. Greenhow, of the Western general Dispensary, and the results have been laid before the Royal Medical and Chirur. Society. He first observed it at Birmingham, in 1858; and has since continued his observations in Birmingham, Wolverhampton, Sheffield, and Leeds. The *symptoms* have some resemblance to an imperfect paroxysm of ague: but they differ from it in two essential features; the paroxysms occur irregularly, and they are always traceable to exposure to the fumes of deflagrating zinc. The attack commences with malaise, a feeling of constriction, of lightness of chest, sometimes accompanied by nausea. These always occur during the after part of a day spent in the casting shop, and are followed in the evening or at bed-time by shivering, sometimes succeeded by an indistinct hot stage, but always by profuse sweating. The sooner the latter follows the setting in of the cold stage, the shorter and milder is the attack, and the less likely is the caster to be incapacitated for work on the following day. Headache and vomiting frequently, but by no means always, accompany the attack, which at the worst is only ephemeral: but the attacks are sometimes of frequent occurrence. Persons who have but lately adopted the calling, or who only work at it occasionally, and regular brass-founders who have been absent from work for a few days, are more liable to suffer from this disease than those who work at it continually. The men themselves ascribe this disease to inhaling the fumes of deflagrating zinc, and there can be no doubt that the opinion is correct: for, on the one hand, several classes of operatives are habitually exposed while at work to conditions exactly similar to those of the brass-founders, except the liability to inhale the fumes of zinc, and yet do not suffer from this ailment; and, on the other hand, brass founders suffer from it in almost exact proportion to their liability to inhale these fumes. The results arrived at by the author are:—

1. That brass-founders, and, doubtless, other operatives exposed to the fumes of deflagrating zinc, are liable to suffer from symptoms resembling an irregular kind of intermittent fever.

2. These symptoms consist of malaise, listlessness, aching of the limbs, nausea, headache, and shivering, with occasionally vomiting, followed sometimes by febrile reaction, but always by profuse sweating.

3. The severity and frequency of the attacks are much influenced by the regularity with which men work in the casting shops. those who work steadily at the occupation appearing to acquire a tolerance of the poison, which is, however, only temporary, seeing that after a few days' absence from work, even the most seasoned casters are apt to have an attack of the metal ague on being exposed to the fumes of deflagrating zinc.

4. The severity and frequency of the attacks depend mainly upon the quantity of zinc fumes evolved into the atmosphere of the casting shops. those men who mix the metals, and especially those who use a large quantity of zinc in their castings, being much more liable to suffer than those who merely re-melt brass bars, or make brass containing only a small proportion of zinc.

5. Any cause that tends to retard the dispersion of the fumes into the atmosphere, such as a close ill-ventilated workshop, or foggy weather, or a high wind that beats back the fumes into the shop—increases the liability of the casters to suffer from the metal ague.

6. Although the cold stage is usually preceded by well-marked prodromata, slight causes, such as getting into a cold bed, or any trifling derangement of the health, are apt to excite a paroxysm in persons already predisposed to it by habitual exposure to the zinc fumes.

7. Operatives, such as makers of galvanized ironware, who work over molten zinc below the temperature of deflagration, enjoy an entire immunity from this disease. According to some French authors, the fumes of deflagrating zinc consist of the metal in a vaporized state.

We have here a *proving* conducted on a large scale by the artists of the manufacturing cities of England. It is neither so minute nor so accurate as the proving of the same article, *Zincum Metallicum*, given by Hahnemann in his "chronic diseases," Volume III., but it is interesting because it is communicated by a scientific man who would not accept the same truth from a Medical Reformer; and the society to which it is communicated can accept it from him, because he is not too far ahead of the times. Almost every homœopathic manual of this century gives the following characteristics of the ague produced by zinc. Shuddering in the evening. *Frequent feverish shuddering over the back*—chilliness in the open air, or after dinner. Constant chilliness with increased internal warmth. Chilliness with shaking from afternoon to evening —Several attacks of fever a day; chilliness and shuddering, flushes of heat over the whole body, *violent trembling of all the limbs*, extreme malaise to fainting, qualmish taste, *violent throbbing throughout the whole body, short and hot breath*, dry mouth, hot and dry hands.—Heat and thirst, with cool skin.—*Pulse quicker in the evening.*—Sour smelling sweat. Profuse night sweat," &c.

In testing the merits of the various remedies proposed for intermittent fever, we many years ago made sufficiently thorough trials of *sulphate of zinc.* It succeeded in cases of well-defined chill occurring at irregular hours, but followed by *fever of open excitement*, with no remaining congestion. In cases where there was strongly congestive tendencies, both in the chill and in the resultant fever, there was too much danger of sudden death in a paroxysm called a "sinking chill," or in the establishment a serious visceral inflammation, to permit experimenting with a doubtful remedy.

Homœopathists have long known that zinc, in different forms, would both cause and cure ague: we hope that the Royal Medical and Chirurgical Society, having learned this much of the pathogenesis of zinc, will endeavor to study more carefully its therapeutic powers in curing diseases *similar* to those it has caused.

The "Criminal" Insane.

According to the penal code of France, "There is no crime nor fault, when the party accused was in a state of insanity at the period of committing the act."

The law of the state of New-York on this subject says: "No act done by a person in a state of insanity can be punished as an offence; and no insane person can be tried and sentenced to any punishment, or be punished for any crime or offence committed in this state."

Such being the law of this state, the Legislature in 1857 made the following provision for the care and protection of insane persons who are proved to have violated the laws under the influence of disease:—A space was set apart within the walled enclosure of the Auburn state prison; and on this spot a large, well-constructed building has been erected, devoted entirely to the confinement and treatment of insane convicts. It consists of a centre building, sixty by forty-four feet, and two wings, one hundred feet long, with transepts of sixty-six feet. The buildings are all two stories high, with a basement. The institution is officered, as all hospitals for the insane are, and conducted on the general principles that govern such modern hospitals. Dr. Edward Hall, the superintendent, in his first annual report in 1861, says: "The building is, in most respects, very substantially constructed; perhaps more so than necessary for patients under constant watch. The halls are built according to the most modern plan, with single tiers of sleeping rooms; and the great thickness of the partition walls is such as to admit but sixty-four sleeping rooms in both wings, though the size of the building seems to indicate a larger number."

The Asylum for the Criminal Insane at Auburn was opened for the reception of patients some time during the year 1859, since which time to the 1st of October, 1861, ninety-nine patients had been received; at that date sixty-nine patients were under treatment, and these were more than the building furnished room for, as the superintendent complains that he has "from seven to twelve more patients than there are sleeping rooms."

On the subject of the employment of patients he says: "The garden and grounds have furnished useful and beneficial employment for a large number of our inmates. The vegetable garden has yielded a substantial return in abundance of good fruit and vegetables used during the summer and in store for winter. The flower-garden has been a source of great pleasure and delight; it has furnished agreeable employment to many, and has been self-supported by the sale of seeds and roots, and prizes obtained at the county fair. We have just finished an exercise yard, with shade trees, built with secure fences, fourteen feet in height, which will be highly beneficial for those unable to work, yet who need exercise in the open air, and will afford these under restraint privileges of air and exercise, which we were previously unable to provide as often as desirable. The labor of grading and preparing this yard and of building the fence was performed (with the exception of one day's work) by the patients and attendants. Since April the patients have accomplished, under the direction of the attendants, a large amount of useful and necessary labor, besides their work in the gardens. They have painted (with less than ten days additional help) all the outside wood work of the premises, excepting the windows, and including the gutters; and have put on nine hundred feet of roofing. They have done nearly all the carpenter and blacksmith work of the place, and have assisted in all departments of domestic labor, especially in washing, ironing, and house-cleaning. We can not expect much positive pecuniary benefit from the uncertain and fitful labors of lunatics, but we are enabled to save, in various ways of labor, quite a large sum yearly. Their employment in useful work becomes also beneficial and curative to themselves, by furnishing physical exercise, diverting their minds from their delusions, proving to them our confidence in their ability, and encouraging them to assume a degree of judgment and responsibility which is salutary and elevating."

In closing a notice of this Institution—the only one of this character in the country—the *Medical and Surgical Reporter* says:

"The obligations of the country to humanity will not have been discharged until each state has one or more such institutions, and adequate provision is made for all who may become amenable to violated law while under insane impulses. Such persons should be formally tried, and if the crime is proved to have been committed while the person was insane, or by an insane person, he should be sentenced, *not* to the jail or the penitentiary, but to the asylum for the criminal insane, and *kept* there until there is evidence of amendment or cure."

Friends' Asylum for the Insane.

This Institution is pleasantly situated at Frankford, in the upper part of the city of Philadelphia, and has now concluded the forty-fifth year of its existence. In its its last Annual Report, the superintendent, Dr. Worthington, says:

"Originating at a time when no institution existed in this country, that could serve as a model for its plan of construction, the founders of the Asylum showed by the quantity of land purchased, and by the amount of space allotted to each patient, in the construction and general plan of the building, a degree of liberality which has probably not been surpassed."

On the subject of restraint he says: "We have not in any case, for several years past, considered it needful to apply mechanical restraint for the prevention of acts of violence and destruction, and we have only resorted to it in any form in cases where severe bodily disease or debility has rendered a recumbent position indispensable to the safety of the patient's life."

During the past year there were seventy-six patients under treatment in the Asylum; of these ten were discharged, and sixty-two remained, of whom twenty-six were men, and thirty-six women. Fifteen patients were admitted during the year. Of the ten patients discharged, six (three of each sex) were restored; one man was much improved, and one man and two women remained stationary.

Eczema.

Hebra says all the forms of eczema may be artificially produced by inunction with Croton oil.

Intestinal Worms.

Kuchenmeister administered to a criminal measly pork on November 29, 1859, and January 18, 1860; made the autopsy March 31. Almost fifty per cent. of the systicerci were found in the condition of tape-worms. No cysticerci were found in the muscles. Duvaine has satisfied himself, that the ova of tricocephalus dispar and ascaris lumbricoides are not hatched in the intestines, but are expelled as they are laid. He succeeded in obtaining their development by placing them in water, which was changed every day. The process did not begin for six months, and the embryo was not found till nine had elapsed. (Sydenham, *Year Book*, 1861, p. 231, 260.)

On Vaccination. By Dr. Kallenbach, sen.

In the winter 1858–59 a wide-spread small-pox epidemic raged through Holland, attacking the vaccinated persons as well as the unvaccinated. I treated thirty-four patients,—eight with variola-vera and six with varioloids, of whom all were treated with Vaccinin and Variolin, 6 (triturated from the fresh, not yet suppurated pock of variola, and further diluted with Aq. distillata), except some particular cases with high fever or diarrhœa, treated with Acon. or Mercur. Its course was shorter and milder, than under allopathic treatment. We made the following interesting observation in two children, never vaccinated, with wide-spread variola,—that the suppurating stage was missed, the fully developed pustules getting dry and brown on the sixth or seventh day without suppurating.

During the epidemic I gave to a great many families Vaccinin, 4, and later, after having made fresh Variolin, this in the sixth and eighth dilution as preservative. More than two hundred persons took those preservative powders, and not one got either variola or varioloid. Yet in several families, where I afterwards vaccinated the children in the usual way, it took fully; and it is therefore an open question yet, if Vaccinin or Variolin, taken internally, are a certain safeguard against small-pox. The preparation, the potency, perhaps also the epidemic during which it was taken might make some difference. I doubt if dilutions with Alcohol are effectual. The fluid of Vaccine or Variola, mixed even with weak Alcohol, makes quickly some sediment, altering perhaps its atomistic—chemical combinations. Dilutions with distilled water do not keep. The crust ought therefore to be triturated up to the sixth, and then further diluted. I never use Variolin older than a week old. From several persons, using my preservative powders, I got the following provings.

No. 1, a young lady of twenty-six. After the first powder, taken in the evening, at awakening the next morning, severe frontal headache, continuing the whole day; toward noon, after lunch, great nausea and oppression of the stomach. After the second powder (I never gave more), the same symptoms, with twice vomiting of mucus and food.

No. 2, 3, 4.—All ladies. Eight till twelve hours after taking the powder a disagreeable twisting in the stomach, as if they could vomit, and slight frontal headache for one or two hours.

No. 5 and 6.—Frontal headache, pressing and oppressing, in persons never suffering with headache.

CLINICAL OBSERVATIONS.—A scrofulous girl, suffering habitually with vertigo and headache, vaccinated fourteen years ago, took in the evening the first powder, and complained next morning of general malaise; itching and burning of the eyes with lachrymation; chilliness, with burning of the skin, as if an eruption would appear; heaviness and pressure in the head; apepsia, with a great deal of mucus in the mouth. Two powders of Sach.-lact.

On the third day I found the patient in a raging fever. I never saw so severe and distressing fever symptoms. The radial arteries and the carotid pulsated with such force, that we feared rupture. The pulsations in the brain made her expect a rupture in the brain, and the excruciating pain rendered her sometimes delirious; skin burning hot; unquenchable thirst; urine sparse, hot, acrid, clear, and of dark brown color; constipation; total want of hunger. Bellad., 4, hourly. Amendment came the next day, but the arteries pulsated heavily yet. Aconit., 1. This she took for a week with great relief; but she had to keep the bed, as the erect posture brought on several pulsations in the temples; for four days followed angina, with deep redness of the fauces. But henceforth perfect health, for the habitual headache, troubling her before, and only partially relieved by Bellad. and

Puls., now left her for longer than three months, and every slight return is easily managed by a single dose of Belladonna.—*Hirschel's homöopatische Klinik.*

From Spain.—In the policlinik of Dr. Pedro Arostegni, in Madrid, 269 patients were treated from the 4th December, 1860, to the end of February, 1861. They were mostly chronic cases, formerly under allopathic treatment, and belonging to the laboring classes. The diseases were ophthalmias; herpetic, scrofulous, rheumatic, and catarrhal catarrhs of the lungs and bronchia; rheumatism; gastritis and gastralgia; syphilis; amenorrhœa and dysmenorrhœa; hæmoptysis; epilepsy, hystery; caries; tabes meseraica. During March 377 cases were treated, with about the same diseases and of all ages.

Santonine.

A. de Martin* corroborates the fact, long since known to homœopathists with regard to *Cina*, from which Santonine is prepared, that Santonine, taken internally, causes the majority of persons to see every thing tinged green—some, however, he says, have the field of vision blue, and a smaller number see things straw-yellow. He gives the following cases where it did good:

A woman, aged seventy, who saw things very indistinctly with the left eye, got four to eight grains of Santonine daily, and her vision was thereby much improved, though the medicine made every thing appear yellow. A case of amaurosis was benefitted; and another, who had lost the right eye, and saw almost nothing with the left, after taking ten grain daily for a week, was able to read words written in large characters on the wall.

Guepin administered Santonine to upwards of seventy patients, and found, that: 1. as a general rule, the urine becomes colored soon after the derangement of vision has passed away. 2. In some patients the urine continues colored even after the derangement of vision has passed away. 3. In those patients affected with atrophy of the arteries of the retina, as well as in those suffering from sub-acute choroiditis, with absorption of pigment the yellow coloration of vision is not observed.

4. In certain of the latter cases, objects on the contrary appear whitish. 5. In almost all the cases of cured acute choroiditis with the exudation more or less colored, Santonine improved the vision. 6. In these cases it generally caused headache. 7. In patients who have formerly suffered from iritis, simple or with choroiditis and exudation, Santonine is usually beneficial: the powers of vision increase, without, however, the exudation diminishing. 8. In certain diseases of the eye (not mentioned,) it is hurtful.

Reviews and Bibliographical Notices.

1. *Helmuth on Diphtheria.* Published by Luyties, St. Louis Homœopathic Pharmacy.

With sincere pleasure and unaffected pride we invite the attention of the profession to this new and important work of our esteemed associate, Professor Wm. Tod Helmuth, of St. Louis.

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* Sydenham Year Book for 1861, page 71. Also. N. A. Jour. Hom. Vol. IX., p. 348.

The first part of the book is devoted to the historical account of the malady, and a flood of light—much of it quite new to ourselves—is thrown upon this part of the subject. By the aid of these new lights we are able to trace the origin of the disease back almost as far as the time of Homer. Its occasional appearance and its destructive ravages during the various epochs of its history, remind one forcibly of its sister scourge, the *cholera asphyxia.*

Passing on to the *description of the disease* in chapter second; to *its pathology* in chapter third; to *its treatment* in chapter fourth; and to *its surgical management* in chapter fifth, we assure the reader, that we have found more scientific research and more real knowledge respecting the disease than is contained in any other work upon the subject extant.

We shall make no attempt to review the book, because we deem it a *sine qua non* with every physician to possess it, and avail himself of its treasures from the fountain head. We presume that the book can be procured at all of the homœopathic pharmacies of the nation.

The homœopathic school is under deep obligations to our brethren of the great West for their able contributions to our literature.

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2. *Manual of Homœopathic Theory and Practice;* designed for the Use of Physicians and Families. By Arthur Lutze, M. D. Translated from the German, with Additions, by Charles J. Hempel, M. D. From the sixtieth thousand of the German Edition. New-York: William Radde, 300 Broadway; Philadelphia: Wm. Radde, 625 Arch-street. 1862. pp. 750.

This new work reaches us heralded by the publisher's announcement, that it is "the most popular treatise on this science which has ever been published in Europe. No less than sixty thousand copies of this work have been sold at the present moment. No physician in Europe can boast of a larger and more lucrative practice, or of a larger number of patients of the highest social standing and education, than Dr. Lutze. He adheres with the utmost rigidity to Hahnemann's original doctrines, and his practice is crowned with undeniable, and in many respects unparalleled success." In a single particular, however, we are told that the author "deviates" from the "established rule of homœopathic practitioners." In the use of a few remedies, and then only in chronic maladies, "*a combination of drugs*" is resorted to; and even this innovation nowhere appears in the body of the work. It is, however, claimed, that even here there is no departure from the principles of Hahnemann, as he himself understood them; and the evidence of the sanction of this "legitimate development of the homœopathic healing art is furnishad in a letter from the founder of the system to the innovator who had ventured to improve upon it. We feel it due to the profession to lay the subject fully before them, premising that the practice of combining remedies can only be beneficial in *exceptional cases.*

In 1833 Dr. Julius Ægidi, physician to the Princess Frederica of Prussia, and now medical counsellor, communicated to Hahnemann the results of his treatment in two hundred and twenty-three cases by combinations of remedies. Instead of repudiating the proposed improvement, Hahnemann promptly replied, that he would not "reject anything good from mere prejudice, or because it might lead to modification" in the doctrines he had taught. He says, all he "desires is the truth;"—he is "rejoiced" that the discoverer "should have had such a happy thought, at the same time confining its execution to proper limits. Two remedies should only be given in combination in a highly potentized form, provided each is, in its own way, homœopathic to the case. In such a case this proceeding is an advantage to our art which should not be repudiated." "I believe," says Hahnemann, "that two remedies may be given in combination, which we do even now, when *Sulphur* and *Calcarea* are given in combination in the form of *Hepar-sulphuris;* or *Sulphur* and *Mercurius*, when Cinnabar is administered." He proposes to publish the discovery to the world in the fifth edition of the "Organon," which would soon appear. At the same time he "*shall protest and earnestly warn against the arbitrary combinations of any two drugs indiscriminately.*"

This letter of Hahnemann to Ægidi was written May 15, 1833. On the 19th of June he wrote again, to say that he had "devoted a special paragraph" to Ægidi's "discovery of a combination of drugs in the fifth edition of the Organon," then just sent to "Arnold, with a request that the work should be printed very speedily." "Thirty years ago" he had the weakness of wooing the glory of being first in a great discovery; he now says, that for a long time past, he "has felt no other desire than that the world should know the best and most useful truth, whether through me or any body else." The recognition of Ægidi's discovery by his venerable master was already in the hands of the printer; but neither the edition of the "Organon," then impatiently waited for, nor any subsequent one, contained the paragraph which had constituted the author's last emendation. It seems that Hahnemann, after inserting it with his own hand, yielded to the "popular sentiment" of the individual members of the new republic of homœopathy; and when he encountered the opposition of his friends in the meeting of August 10th of the same year, he consented to suppress the offending paragraph, though it was already printed. Ægidi published his own version of his discovery in the fourteenth volume of the Archive in 1834, but it received no favor from the homœopathic physicians of Germany: and its author, finding his boat not strong enough to withstand all the batteries arrayed against him, suffered it to drift out of the range of their artillery. He trusted still, that it would yet "walk the waters" under the guidance of a more adventurous pilot in the better day that was coming.

Such a man we find in Dr. Lutze. Instead of being afraid of the breakers, he pushes at once beyond them. He at once brings the practice of Ægidi and the intuitive suggestion of Hahnemann to the test of experiment. He assails the hydra-headed psora, and all his allies at the same time, with weapons unknown to Hippocrates or Hercules, and "conquers a peace" before the enemy has had time to hear his summons to surrender. He does not expect the theory by which he explains these results to be intelligible to any medical philosopher who can not understand the theory of *dynamization* and the action of *high potencies.* One of the objections most frequently urged against the combination of remedies is thus disposed of: "In comparing the use of *combined remedies* to the mixtures of allopaths, the opponents of this discovery showed most conclusively, that they have neither apprehended the essence of homœopathy, nor the meaning of potentization. If a medicine is selected *homœopathically*, or in conformity with the law of similarity, every arbitrary proceeding which prevails in allopathic practice ceases; an arbitrary compounding of drugs can not be compared with a combination of remedies based upon law. In the next place, the term mixture only applies to coarse materials, but not to high dynamizations, which have been deprived of their material constituents, and have been converted into purely spiritual powers, by means of which the most astonishing effects can be produced,—such as the instantaneous cure of violent toothache, by simply smelling of the appropriately-selected agent. Thousands of cases illustrate these marvellous effects."

After further efforts to "illustrate his position by analogous facts," he abandons the task on the ground that "no fundamental or elementary phenomenon can be explained."

"Hahnemann commits a slight mistake by ranging Hepar-sulphuris and Cinnabaris with combined remedies; the difference is, that the former are mixed in their crude elements, and then potentized and proved as identical units; whereas combined remedies consist of two high dynamizations acting side by side with each other, *each in its own specific manner.*

"Three or four years ago the discoverer first acquainted me with the combination of remedies; having had thousands of opportunities of trying them in my clinic, it is useless to deny their efficacy. But I must request my colleagues, who are anxious to institute similar experiments, to do so with carefully prepared potencies. Our excellent Bœnninghausen has informed me orally, that he has obtained equally fortunate results with the high potencies, and every honest experimenter will be able to achieve a similar success." Though we do not doubt the truth of these statements, we still believe that the best results will follow the closest adherence to the rules given by Hahnemann.

As a specimen of the cases given to illustrate the effects of combined medicines, the first case in which he prescribed in this manner will give the subject a fair presentation. More remarkable cases are given, but we pass them over for the present.

"A lady, who had been operated on for cataract by Jüngken nine months ago, had been suffering since then with such a violent ophthalmia and such intense pains in the eyes that she prayed for death, since Jüngken was unable to order anything for her relief except leeches to the temples—a stupid remedy, which had the effect of determining the blood to the head more and more. As soon as she heard my steps, she exclaimed: 'Oh, relieve me of my boundless misery, else I shall prefer death!' I at once mixed three globules of *Aconite* and three of *Belladonna* in a small tumblerful of water, and ordered a dessertspoonful every hour. Half an hour after the first dose she felt relieved; in two hours the pains left her; and in twenty-four hours pains and inflammation had disappeared. Now she was for the first time able to enjoy the benefit of the operation, which had otherwise been performed with perfect success. Homœopathy has converted ophthalmic surgery into a true blessing; I can show numbers of cases where I have operated without the least inflammation supervening; for immediately after the operation I give *Aconite*, 30, in water, every two hours; and if the patient complains of pains in or over the eyes, I give Belladonna, 30, in alternation or combination with Aconite." Thus far we have thought proper to permit the author to speak for himself. We must admit, that some men may be successful in using combined remedies, but at the same time, we know that in ordinary practice those who give but one remedy at a time will succeed better.

But it is not merely in the use of combined remedies that the work before us presents the highest claims to our attention. The author attributes his success to the faithfulness with which he adheres to the principles of Hahnemann, the skill with which he prepares his remedies, the care with which he selects the appropriate ones for individual cases, and the faith which he reposes in their efficacy. Having selected the true remedy, he confides in it without wavering, and thus gives it time to perform its work; where another, who distrusts both his remedy and himself, flies from one resource to another, calling for help from all, without waiting long enough for any one to give it.

In acute diseases he gives the usual remedies at short intervals, often in alternation, even in combination. But he says: "It is different in cases of *chronic disease*, or diseases which run a long course, have existed for years, and deeply taint the organism,—for instance, deafness, blindness, gout, paralysis, old eruptions, open sores and old ulcers, fistulæ, herpes, curvatures of the back and bones, caries of the bones. *In such chronic affections the medicine should never be frequently repeated, nor should the same medicine be given twice in succession.* Each dose should be allowed sufficient time to develop its full effect, since it is the subsequent action of the drug that achieves a cure."

In such cases the practice of the author now is to *dissolve* "*three to five pellets of the thirtieth potency in a cupful of fresh water, of which I give a swallow morning and evening for four or five days, after which I allow the medicine to act for three or four months, sometimes even for five or six months; or even longer, if the improvement continues;*—if it should cease, and three months should have elapsed, I then give another remedy. "The reason why I do not give another remedy under three months (except in case acute symptoms supervene) is, because I have noticed that the primary action of the drug is sometimes not developed under two or three months, after which a cure takes place, which could not have been accomplished if I had not waited a sufficient length of time to allow the medicine to manifest its full action, or if I had interfered with it by the untimely repetition of the dose. The curative process should not be viewed as materially as it very frequently is. *The properly-selected remedy starts the cure, the natural curative power finishes it.*"

We extract one case as a sample of Dr. Lutze's treatment of chronic psoric disease.

"Mr. H., from Holstein, aged forty years. Almost constant pains in the left side of the chest. Frequent yawning, sneezing, and eructations. Occasional pain and swelling in the pit of the stomach; empty eructations when pressing upon this region. Deafness of the left ear from infancy. Swelling at times of the left cheek; at other times of the mouth, nose, and eye. Stiffness in the nape of the neck. Drawing pains in the left thigh. Weakness of the stomach and nerves. In former years, inflammation of the glands and lungs. He had the itch when young, which had been removed with an ointment. I sent him four powders, to be taken in eight weeks. No. 1 containing four pellets of Sulphur, 30, which were to be dissolved in a cupful of water, a swallow to be taken morning and night for four days. After eight weeks the following report was sent to me: A few weeks after taking the medicine, all the symptoms grew worse; but in three weeks a general improvement set in. The left ear began to discharge again, which had not been the case for years; and the flatulence and pains in the chest have abated, so that the patient feels much better. I sent four powders of sugar of milk, for the effect of Sulphur now first began to show itself. The next report being still more favorable, I continued the non-medicinal powders. Twelve months after the commencement of the treatment, I received the following report: The hearing of the left ear, which had been deaf these thirty-two years, is restored, and I am cured except a small swelling near the left eye, and some stiffness of the nape of the neck. Another non-medicinal dose completed the cure. *One dose of Sulphur*, 30, did all this in the space of four months."

After some other cases, as strong or stronger in the testimony they give in favor of the principle contended for by Dr. Lutze, he thus concludes this section:

"These cases show that no second dose of a remedy should be given as long as the first dose has not exhausted its action, and in cases where no effect is observed, as in the case of deaf and dumb patients, to allow a dose to act at least for three to five months; since it is impossible to know what is going on in the interior of the organism, and it is so easy to injure the salutary action of a drug by the untimely exhibition of another remedy, of which we have had repeated instances in the case of externally perceptible ailments."

It is evident that our author is a man of "faith and patience;" and we have elsewhere learned that such have always been the men who have "inherited the promises." The highest standard of faith for a philosopher, as fixed by Sir John Hershel, is, that he shall "hope for all that is not impossible, and believe in all that is not unreasonable." The standard of Dr. Lutze is displayed from a distant mountain, which materialistic philosophers have not yet visited. As this is an age of materialistic skepticism, when many *professed* homœopaths rely almost entirely on crude drugs in small doses, and old-school men rely more and more upon no medicine at all, it is somewhat refreshing to meet with an occasional practitioner and author who *does believe in something.* Let us test the materialistic and transcendental homœopaths by their *works*, and bestow a crown of laurel upon every man who shall distinguish himself in the CURE OF DISEASE.

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3. *Braithwaite's Retrospect of Practical Medicine and Surgery.* Part 44.

THIS splendid *resumé* of the progress of medicine and surgery for the last half-year demands particular attention. This No. is much enlarged from former ones and the articles are well selected. It is the most admirable *digest* of the current Medical literature of the time, belonging to the allopathic school. The writer of this notice has often indulged in the *dream* of a time in the future, when such a retrospect would not only contain all the best of allopathic, but the best of homœopathic and our eclectic literature. It is his firm faith that such a time *will* come, although he may not live to see it. But this work, *as it is*, should be in the hands of every homœopath, because aside from the practice of medicine, proper, it contains a record of all the advancements made in physiology, pathology, midwifery, and surgery. Even the therapeutical portion thereof, is worthy of perusal, for all the results, of any value, were brought about by the use of remedies, given unwillingly according to the homœopathic law. I propose to notice some of its most prominent articles.

Actea Racemosa in acute Rheumatism.—Dr. S. R. McDonald, of Edinburg, has made some rapid and surprising cures with this remedy. He gives twenty-five to forty drops of this tincture three times a day. Our provings show it to be homœopathic to many forms of rheumatism, chiefly muscular. It affects in preference the muscles of the back, neck, chest, and uterus. The first dilution, or two or three drops of the tincture repeated every hour or two, has in my hands acted magically in acute rheumatism of the parts above named.

"*Digitalis in Delirium Tremens.*—In a case related by Dr. Casey, Opium aggravated the symptoms: whilst half an ounce of tincture of Digitalis with an equal quantity of gin, caused the patient to fall into a deep sleep, which continued without intermission for twelve hours. He awoke quite rational, and in two days was quite well. The Digitalis did not produce its alleged results, diarrhœa and vomiting, nor were the kidneys stimulated to increased action. The influence of the drug on the pulse was not such as to offer any barrier to its repetition.

"The large doses of tinc. Digitalis, half-ounce doses, at long intervals of twenty-four hours, may be given safely. The pulse falls, but acquires power, and steadiness, and the tremor subsides. It is best to confine its use to young and robust subjects, whose strength has not been broken down, by prolonged habits of intemperance, and to cases of excessive drinking."

It is now nearly two years since Dr. Peacock, an English physician, published an account of his treatment of this malady, with enormous doses of Digitalis. The medical world scarcely credited it, and were slow to adopt what seemed to be a hazardous experiment. But the remedy was tried by some of the bolder members of the profession, and it exceeded their expectations. Within the last six months nearly every medical journal in England and America has contained reports of successful cures with Digitalis. How, and in what manner it acts, is still a question of much doubt, and the attempts to explain its *modus operandi* are still inconclusive. In this No. I find several cases treated successfully with half-ounce-doses.

Personally, I have had no experience, with the drug in delirum tremens, except in one case which came under my observation. The man was of middle age, a German, who had been drinking poor whiskey excessively. He was very furious, ran about the streets, trying to get away from imaginary devils which he supposed were in hot pursuit. I was out of town, but my pupil, Dr. Williams, got him home, and there ascertained his pulse to be over 100; hands and feet cold, head hot, eyes gloomy and injected. He was very much excited, trembled excessively, and could hardly be restrained. Nux, 1, and then Opium, 1, was given with no apparent effect. Stram, and Hyos. were tried in vain. In the night, quarter-grain-doses of Morphine were given every half-hour, but after four grains he was as wild and excited as ever. Dr. W. had been reading that day of the use of Digitalis, and determined to give it a trial. He gave it in dram-doses, repeated every two hours. After the second dram had been taken ten or fifteen minutes, the man got up from his chair, and in trying to get out of the door fell down insensible. His pulse was then firm and 86. He was laid upon the bed, and in about twenty minutes awoke perfectly rational and calm!! No other medicine was needed, and in a few days he was at work. If such a fearful malady as this can be *safely* treated with these massive doses, we shall find no fault, but rather be thoughtful for its discovery.

While speaking of delirium tremens, I would suggest an apparent homœopathic remedy, which should be tried when other means had failed. In King's Disp. Art. Cimicifrega, he says. "I have known three drops of the saturated tincture, given every hour for twenty-four hours, to *produce symptoms in every way simulating those of delirium tremens.*" And yet this same remedy is advised by all electic writers, and is used with great success in all diseases characterized by excessive *nervous irritability.* It is said to allay nervous excitement promptly, and ward off impending spasms; to "lessen the tendency to cerebral congestion, and quiet the pulse." In my practice small doses fulfill these indications admirably in many instances. What better proof can be presented of the truth of the law of *Similia;*—and of the stupidity or willful ignorance of the dominant school in not accepting its truth?

"*Asphyxia.—Effects of the Hot Bath.*—Thirteen animals, as nearly as possible of the same age and strength were drowned, that is, were submerged until respiration had entirely ceased. Seven were placed in a warm bath, after removal from the cold water, and the other six left to themselves. Of the latter *four* recovered; of the former only *one!* With regard to the morbid appearances in case of death of the animals put into the warm bath, compared with those of the animals not so treated: "in the animals put into the bath the lungs were much more congested, more full of blood; * * both sides of the heart were bloated with blood. In some instances the blood was coagulated in the vessels of the lungs, the systemic veins, and the cavities of the heart." In no instance did the bath produce a respiratory effect or any movement whatever on the part of the animal; it seemed further to shorten the duration of the heart's action. These experiments seem quite sufficient to show the injurious influence of the hot bath, both when asphyxia is complete and when recovery is commencing, * * that it is not only inefficacious, but dangerous. Probably by far the most efficacious means of producing respiratory movements is the alternate dashing of hot and cold water on the body."—Dr. A. T. Waters.

Whooping Cough.—"The common clover hay (Trifolium in fœno) given as infusion ℥ij. to Oij, or as a syrup, has a wonderful effect in relieving whooping cough. The remedy is *purely empirical*, but it nevertheless cures most cases in a few days."—*Dr. Foster, p.* 49.

Instead of "*empirical*" the doctor should have written "homœopathic," for it is certainly indicated by the law of *similia.* The so-called "hay asthma" is due to the influence of the medicinal principle of clover, which escapes partially during the process of curing. It seems to reside principally in the impalpable dust, which arises from the clover. It has been supposed that this dust produced its effects by its *mechanical* action alone. The same has been asserted of Ipecac., yet we know that Ipecac. in small doses relieves many forms of asthma, and various spasmodic coughs. The *Trifolium* deserves a trial in many affections of the bronchia and lungs. It is homœopathic to spasmodic asthma. It causes a similar disease in man; and horses who eat clover get the "heaves," which is but a form of asthma. From much observation, I know that it causes spasmodic cough in horses; a cough which much resembles whooping cough, and the cough arising from spasmodic croup. This medicine may be prepared as above recommended, or a tincture may be made from the leaves and flowers, and dilutions used, or it may be given in trituration. But it is a remedy so mild and tasteless, that an infusion can be used as readily as any form. Let us make a trial of it, and prove its homœopathicity.

Spasmodic Asthma.—"It is a common practice in China, for asthmatics to smoke Arsenic, and with the greatest relief to the disease. A very interesting case is related, in which a French lady did the same in consequence of hearing the above. She commenced with a quarter of a grain, swallowing the smoke. From being in a state of constant breathlessness and suffering, unable to lie down or make the slightest exertion, she is now able to go about like other persons, and is rarely threatened with an attack oftener than once in three or four months, and that is at once checked by smoking Arsenic, with a very small quantity of Belladonna or Stramonium."

And I have cured equally bad cases with the second and third triturations of Arsenicum, or the first decimal dilution of "Fowler's Arsenical solution." This preparation I find much more efficacious than the *Ars.-alb.* It seems to be more prompt and active, more energetic, when Arsenicum is indicated. It should be prepared with distilled water instead of Alcohol. The most efficacious and satisfactory method of treating asthma, is with Fowler's solution, 1st dec., and Kali-hyd., 1st trit. (dec.) in alternation, every hour or two, or three times a day, as circumstances demand. The Kali-hyd. should be given in a large spoonful of rain-water: or the first decimal trituration may be used, prepared .10 grs. to 1 ounce aqua dis.

Housemaid's Knee.—"Pass through the tumor a thickish thread, which allow to remain in. This sets up inflammatory action, known by a little redness around the entrance of the thread, and the swelling either subsides altogether, or, what is more common, an abscess forms, which is opened, and the cavity becomes obliterated."

The treatment by internal remedies is so unsatisfactory generally, that the above method should be tried in old and obstinate cases.

Irritable Bladder.—An infusion of a kind of grass, which is named by the writer, M. Thompson, the *Triticum repens*, has been found very efficacious in this condition. I cannot make out by the authorities near me, what kind of grass is spoken of, no description of the article being given.*

Gonorrhœa.—"Dr. Irwin (an army surgeon) uses no other remedy in urethral inflammation than Chlorate of Potash. His method of using it is as follows: One drachm of the salt, dissolved in eight ounces of water, of which an injection is given every hour for twelve hours, at the end of which the discharge has become changed and diminished,—allowing the remedy to be gradually discontinued until the second or third day, when the disease will be generally found to have ceased."

This method is so harmless, so little likely to injure, by excessive irritation, causing a stricture, as compared with the caustics usually employed, that its merits should be tested. I am now using it in one case with apparent benefit.

"*First Stage of Labor.*—When we know from previous experience, that a patient will probably have a tedious and protracted first stage of labor, from non-dilatation of the os uteri, it is a good plan to give small doses of Belladonna for a fortnight before the termination of gestation. An eighth of a grain of extract may be given three times a day, combined with a very small amount of Antimony." (Dr. Coughlan.)

Why, in the name of common sense, must every prescription be *combined* with something? This silly practice of mixing remedies has done more to retard our knowledge of materia medica than anything else.

The writer gives further directions in quite a lengthy article on the management of tedious labors. "I aimed to commence at a minimum dose; but in some cases, owing either to the idiosyncrasies of the patient, or the unusual strength of the article, I have been obliged to diminish the dose; but in most cases it has been gradually doubled, or even tripled. The *test* has been, the constitutional effects of the article in a slight degree: as dryness of the throat, slight uneasiness or giddiness of the head, or dimness of the vision." Upon the accession of these symptoms he advises the dose to be diminished gradually. Dr. Braithwaite, in a notice of this treatment, says: "But we should be afraid that Belladonna would relax also the *whole uterus*, and thus weaken its efforts during labor." * * * "You cannot command the Belladonna which has been given for weeks, to cease its relaxing powers just when you like." These remarks are eminently proper. The use of Belladonna in such large doses should not be tried. In smaller doses (one drop of the first dilution) it might be of practical use. In such doses it might have its effect in relaxing the sphincter of the os and cervix, and not the uterus itself. But the *Caulophyllum* has a more specific effect in producing a normally relaxed state of the neck. It has been used for many years for that purpose by western physicians, who learned its value from the Indians. Given in doses of one-tenth of a grain of the active principle (Caulophyllin), or a few drops of the mother tincture three or four times a day for the two weeks previous to labor, it will certainly diminish its duration, if abnormal. This I have verified in numerous cases. One, a woman who usually lay in labor four days, took this remedy, and was delivered in four hours from the first pain. Another, who had puerperal spasms with her two last confinements, took Cauloph., 1, and Bell., 1, each twice a day; her labor was short, easy, and with no symptoms of a spasmodic character.

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* Popularly known as "couch-grass, quack-grass, dog's grass," &c. Troublesome to farmers in rich soils; useful for bringing the banks of canals, and sandy soils.—Ed.

"*Premature Labor.*—One of the best ways is to insert a flexible male catheter to separate a portion of the membrane at some little distance up the womb, taking care as much as possible to avoid the situation of the placenta; then withdraw the stilet, and leave the flexible portion of the catheter in the cavity till labor comes on. Labor will commence in about twelve hours; but if the instrument perforate the membrane, the labor will perhaps be retarded for twenty or thirty hours." (Dr. Simpson, p. 178.)

A cursory glance at the various methods of inducing premature labor may not be out of place here. These may be arranged as follows, in the order in which they have been discovered and recommended.

1. Puncture of the membranes. The principal objection to this plan is, according to Dr. Priestly, that "statistics show that a much greater number of children are saved when premature labor is induced by separation of the membranes, than when the membranes are punctured." We lose the influence of the bag of water in dilating the os.

2. The administration of Ergot, &c. To Ergot and all other uterine-motor remedies much objection may be made. They are unreliable and uncertain, and often dangerous. In the present state of our knowledge they should not be resorted to except during the progress of labor, and to meet abnormal demonstrations.

3. Dilating the *os*, with sponge-tents, &c. This method has its defenders, who claim for it superior merits (as Dr. Davis, p. 182), but it is a troublesome, difficult, and uncertain plan; nor does it cause uterine contractions readily or directly, but indirectly by irritation of the os. There is a possibility too, of its causing ulceration and inflammation of the os and cervix.

4. The uterine douche of Prof. Kiwish. This method has its defenders, but it is a "clumsy and inconvenient contrivance," says Dr. Simpson. It sometimes takes away many days to have its effect, and all this time the bed and clothing of the patient is kept wet.

5. Partial separation of the membranes. This is to be done with the finger or female catheter, introduced into the uterus, and moved around the internal os. It is not a certain plan, and often fails entirely.

6. Injection of warm water. This is to be done by means of a syringe with a flexible tube, which introduce between the membranes and uterine surface. I have found this method very successful, and until lately, considered it best of all. Still I had a lurking doubt of its safety, fearing that the water or air might get into the circulation, or pass into the peritoneal cavity. Dr. Simpson has seen patients faint under its use, probably from that accident. In fact, fainting is a common accompaniment of the operation.

7. Injection of Carbonic-acid gas. This was proposed by Scanzoni as an oxytoxic, but should not be adopted. Prof. Simpson, who has tested it, says, "*it ought never again to be attempted,*" owing to the certainly fatal effect of the gas if it enters the circulation through the uterine sinuses. Almost the same objection may be made to the injection of atmospheric air, which has been recommended.

8. Separation of the membranes with the sound. Dr. Simpson (who, by the way, uses the uterine sound for nearly every abnormal condition of the uterus) says: "Pass the sound to some distance into the interior of the uterus, and moving it slightly from side to side, taking care to avoid the site of the placenta." But he says, that it may have to be introduced several times before labor comes on. Yet the success of this method in his hands was so great, that for many years he used it almost exclusively.

9. Caoutchouc dilators: the colpeurynter, &c. These are to be introduced into the vagina, up against the os uteri, and act by dilating the os, and thus bring on labor. "But these contrivances," says Dr. Barnes, "have been followed by inflammation of the genitals and death." While we have so much better methods, it is hardly worth while to try a dangerous one.

10. Galvanism: mammary irritation, &c. A good many minor methods might be mentioned with these, but are not of sufficient importance to notice.

11. The last discovered, and probably most useful, as well as the safest method of inducing premature labor, at any period of pregnancy, is *the introduction of a flexible male catheter* into the interior of the uterus, between the membranes and the uterine walls, withdrawing the stilet, and leaving the catheter there until labor sets in. Dr. Simpson says, this flexible catheter, if "placed between the uterus and its membranes, seems almost invariably to cause labor to supervene within twelve hours." * * "If its extremity chanced to perforate the membranes during its introduction, labor did not supervene for twenty or thirty hours longer." Statistics of fifty cases, that have been operated on by this means in Germany, have been collected by Dr. Amann, who showed, that in all labor had been induced within twelve hours. If it should be desirable to have the os dilated before labor, a small india-rubber dilator might be used, introduced in the manner of a sponge tent. It is well to bend the wire in the catheter nearly straight, as, if much curved, the stilet, in being withdrawn, bends the point so much as to endanger the safety of the membranes. I [Hale] have followed this method in three cases, and in each labor came on within twelve hours, and terminated favorably. I consider it superior to all other known methods, and one perfectly free from danger, if only ordinary dexterity is used.

American Hellebore. Verat.-viride.—This drug possesses a great power in calming a nervous excitement, and reducing the force and frequency of the heart's action. These two effects therefore are invaluable in a medicine. In sthenic diseases it acts like a lancet, without reducing vital power; it is more prompt and certain than Digitalis; it is better than Antimony, both as a sedative, expectorant, and diaphoretic. Give three or four drops every two hours till the pulse comes down, increasing the dose, if necessary. When emesis is produced the pulse comes down sufficiently, the skin softens, and profuse perspiration breaks out. In pneumonia, pleuritis, acute rheumatism, croup, iritis, and other inflammatory diseases, when the pulse is strong, you can use the Veratrum-viride with great efficacy. (Dr. Otterson, p. 296.)

Our English friends are just recognizing the value of this remedy. The diseases in which Dr. O. recommends it, are controlled readily by it; but it is of wonderful efficacy in metritis and puerperal fever, alternated with Belladonna. It is never necessary to cause emesis, one-fifth or one-tenth of a drop every two hours is generally sufficient, although there are cases n which I considered it proper to use larger doses. The rule should be, o *give enough* to *control the pulse*, if it be one, two, or three drops every two hours. In many cases, especially when the stomach is irritable, or in diseases of children, *Gelseminum* is a better medicine, and will often control febrile symptoms when Verat.-v. and Aconite fail. But it is in pneumonia that the Verat.-v. shows its most specific powers. It is the only remedy that will absolutely *cut short* the pneumonic inflammation before the seventh day. In my hands it has frequently *arrested* the progress of the disease on the third, fourth, and fifth days, and a rapid convalescence followed in every instance. The dose should be such an amount as will do the work Like Aconite and Gelseminum, it is secondarily homœopathic to local inflammations, and must therefore be given in material doses; yet I have never had to exceed one or two drops of the mother tincture every hour or two, and in but one instance did I ever notice nausea and vomiting to supervene.

Braithwaite contains many other articles of great interest, like Brown-Siquard on Reflex Paraplegia; Trousseau on Gout; Chambers on Blood-letting in Apoplexy; "On the Uncertainty of the Sputum as a Diagnostic Feature in Pneumonia," by Dr. Williams—a very valuable paper; and an excellent article on Uræmic Toxication. HALE.

The Old and the New Systems of Medicine Contrasted.

Part III. The Basis of the Old System. The Basis of the New System. By John Williams Hayward, M.D., &c. London: Henry Turner and Co., 77 Fleet St. pp. 23.

The author of this work carries on the contrast between the old and new systems of medicine, devoting a chapter of the present issue to each. In endeavoring to find what is the scientific basis of the old system, he searches the works of the leading authors who have been generally acknowledged as orthodox exponents of its principles. Unable to find any one creed or theory generally referred to as a fundamental law, he calls into the ranks the different systems still claiming a right to rule the minds of men, each of which continues to be acknowledged as the rule of faith and practice of some considerable section of the so-called medical profession. In seeking for the *law of cure* under which the intelligent men of the dominant school profess to act, he finds *eleven different, incongruous,* often antagonistic laws of cure or *general principles* of medicine, all of which in the popular medical mind are in good repute, each being obeyed with alacrity in every portion of the grand regular army enlisted in the service of the much afflicted human body, and each exercising *brief* authority at one time or another over every officer and soldier in the ranks.

The author having briefly explained the eleven different and incongruous theories which lie at the foundation of ordinary allopathic practice, and remarked the alternate growing and waning popularity of the prominent ones, says: "The general practice of the old system is made up of all these contradictory hypothesis jumbled together; its practitioners occasionally using derivatives and counter-irritants, according to No. I.: occasionally drying up moist surfaces, and rendering dry ones moist, according to No. II.; occasionally washing out, sweating and purging, according to No. III.; occasionally constringing and relaxing, according to No. IV.: occasionally chemical antidoting and drugging, according to No. V.; occasionally bleeding and reducing, or stimulating and feeding, according to Nos. VI., IX., and X.: occasionally counteracting imaginary spasm, according to No. VII.; and occasionally giving bread pills and colored water, according to Nos. VIII. and XI.! Well indeed, may they contend that medicine is not a science, but merely a rude and uncertain art: that the law of medicine has not yet been discovered, and that "its discovery would be the greatest imaginable discovery in medicine."

So many conflicting theories cannot all be true: and there is now a growing suspicion in the human mind that none of them embody the essential truth on which a true and successful medical practice can be based; indeed this is confessed by most of the advocates of the system, and the learned Dr. Adams, one of the most eminent of them, exclaims:—"One cannot think of the change in professional opinions, since the days of John Hunter, (at the close of the last century,) without the most painful feeling of *distrust in all modes of treatment.*" This feeling of distrust in all the old doctrines of medicine is extending among the people in every civilized country. Let the men who claim to possess a *true law of cure* prepare for the crises which will soon bring them as well as their doctrines to the test of experience; and they will be called to act under the eyes of a more enlightened public than ever scrutinized the theories or attainments of their predecessors.

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5. *The Medical and Surgical Reporter. A Weekly Journal.* Philadelphia, publication office, N. E. corner 7th and Sansom-streets. 1862. Edited by Drs. S. W. BUTLER, R. J. LEWIS, and L. C. BUTLER.

No allopathic periodical gives a better weekly summary of the medical news which concerns alike the practitioners of every school, than that which we have just named. The number for the week ending March 22d is the twenty-fifth of the seventh volume. It contains several able original communications, proceedings of medical societies, reviews and book notices, and editorials. In one of the numbers recently received, we find an important article on a subject of great practical interest.

TRANSMISSION OF SYPHILIS BY VACCINATION.

That the secondary symptoms of syphilis can be inoculated on persons who *have never been affected with the disease*, has been thoroughly proven by experiment and clinical experience by a great number of observers in this country and in Europe. Until the time of Hunter, syphilis in every stage was believed to be highly contagious, and contact with any of the secretions, or even exposure to the breath of those suffering from constitutional infection, was dreaded. Hunter tested the communicability of the secondary lesions by numerous inoculations upon those who *had already* suffered from syphilis; and all these failing, he established the dogma that the secondary manifestations of the disease are not inoculable. It was believed to be morally wrong to inoculate persons with syphilis who had not already experienced it, and the erroneous conclusion of Hunter was permitted to pass without correction. But recent and direct experiment "on persons who have never had the disease, and accumulation of evidence from clinical experience" have compelled the most persistent adherents of Hunter's teaching to acknowledge that the secondary symptoms of syphilis can be transmitted by inoculation to persons who have never been infected with it, and that the analogy between syphilis and some other infectious diseases is sufficiently demonstrated.

Syphilis has been repeatedly inoculated by means of pus from syphilitic ecthyma pustules, from the secretions from condylomata, and from specific ulcerations of mucous membranes on persons who never had the disease. "The blood of a syphilitic patient has also been made the means of communicating the disease by applying it to a scarified surface on a non-infected subject." "It is perhaps from direct inoculation with the blood of a syphilitic patient—the lancet being charged with it—that the operation of vaccination has been the means of introducing syphilis; yet there is a considerable amount of evidence in favor of the possibility of inoculation through clear vaccine lymph and pus. A number of observers, mostly French, have given their attention to this subject, and the evidence certainly seems conclusive in favor of the propagation, not only when the blood of syphilitic persons had been used alone, or mixed with the virus, but when only lymph from the vesicle had been introduced.

"We believe that enough has been adduced in proof of the occasional infection of syphilis through vaccination, be it either blood, lymph, or pus, to induce practitioners to be exceedingly cautious in the selection of virus, and it is with the object of impressing this caution that we now discuss the subject." It is not an uncommon thing, as every practitioner knows, to see ordinary eruptions on the skin of children attributed to vaccination, yet it is probable that real syphilitic disease, introduced by vaccination, has sometimes appeared, and not been recognized because not suspected.

"It should be borne in mind by observers, that vaccination with pure matter is sometimes the exciting cause of syphilitic eruptions in infants already under the syphilitic diathesis, in the same manner that it gives rise to non-specific eruptions in strumous subjects. The history of the case and the order of evolution of the symptoms are generally sufficient to establish the diagnosis. For instance, the appearance of the eruption within a few days or weeks after vaccination, without the ordinary period of incubation of syphilis, will render it probable that the disease was already latent in the system.*

In regard to the selection of vaccine matter, with a view to insure safety from syphilitic taint, the following rules have been laid down:—1. Examine carefully the child from whom the lymph is taken. 2. Try to learn the state of the parent's health. 3. Choose, in obtaining lymph, such children as have passed the fourth or fifth month, as hereditary syphilis in general appears before that age. 4. Do not use the lymph after the eighth day of the existence of the vesicle, as the lymph on the ninth and tenth days becomes dull by mixture with pus, which latter may be of an infectious nature. 5. In taking lymph with the lancet, avoid hæmorrhage, as there is less danger with pure transparent lymph.

The symptoms of syphilis, when introduced by vaccination, differ but little in their manifestations from the ordinary course of the infection. The two diseases do not seem to be incompatible, and apparently do not interfere with the courses of each other. It is said that a slight delay in the maturation of the vaccine pustule is caused by the contamination, and it has been noticed that syphilis under the same circumstances pursues its ordinary course.

Like the onset of syphilis as incurred in the most common way, we could anticipate that the secondary symptoms would only appear after an incubation of some weeks. If an eruption of a suspicious appearance should break out within a few days after vaccination, it should be inferred that it is not specific; or if syphilitic, it is evidence that the disease was pre-existent in the system of the patient, and had been merely developed on the surface by the vaccine irritation.

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* Bumstead on Venereal Diseases.

In a recent publication a record appears of the communication of syphilis to forty-six children by vaccination, in the village of Rivolta, Piedmont. In these cases the symptoms of syphilis appeared on an average on the twentieth day. The symptoms of genuine syphilis by vaccination, after a regular incubation period, would be fever and debility, papules on the skin, pustules, swelled lymphatics, ulcerations of the mucous membranes, &c. The principal appearances noted after the disease had existed some time in the forty-six cases alluded to, were mucous tubercles on the verge of the anus and genital organs, sores on the lips and fauces, swelling of lymphatics, syphilitic eruptions, induration of the cellular tissue, &c.

"We can not, in view of the evidence which has been for a long time accumulating, doubt that, however infrequent the occurrence may be, syphilis is occasionally communicated through vaccination. Practitioners, owing to a disbelief in the possibility of such infection, or to thoughtlessness, are not always particular in being assured of a freedom from constitutional symptoms in the selection of the subjects from whom vaccine virus is propagated. We repeat, that in the present state of knowledge on the subject of the transmission of constitutional syphilis, there is, to say the least, sufficient evidence to induce greater caution in the selection of vaccine virus.*

6. *Ethical Impediments to the Progress of Homœopathy throughout the Profession.* An Address delivered before the members of the Manchester Homœopathic and general Medico-chirurgical Society, &c. By Alfred C. Pope, Mem. Roy. Coll. Surgns. Eng., Surgeon to the York Homœopathic Dispensary. London, 1861.

The author of this address makes a commendable effort to discover the sources of the prejudices in the minds of orthodox physicians, which have hitherto held them back from the fair examination of the claims of Homœopathy. From his observations it appears: 1. That the physicians of the dominant school of medicine who have hitherto neglected to examine the claims of the reformed system of medicine are, to a large extent, entirely ignorant of the subject; and that the unwarrantable and unscientific attacks so often made upon the new system, *merely because it is new*, are all based on "erroneous assumptions regarding the nature of our therapeutics, and the professional education and social status" of its votaries. Deriving their information on the subject of Homœopathy from "the editors of medical journals and the leaders of medical societies, all equally ignorant" of its doctrines as well as its results in practice. "The conduct of our medical brethren, with whom we daily come in contact, has become both unjust and oppressive." Physicians who have no experience of Homœopathy, "accustomed to receive with confidence and respect the *ex cathedra* statements of university professors, hospital teachers and medical journalists," very naturally acquire "very deeply-rooted prejudices against Homœopathy;" and it may well be expected "that these should be reflected in their conduct towards those who practice it."

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* *Medical and Surgical Reporter*, May 17, 1862.

Miscellaneous Items.

An Act to Incorporate the Homœopathic Medical Society of the State of New-York.

The People of the State of New-York, represented in Senate and Assembly, do enact as follows:

Section 1.—It shall be lawful for each of the county homœopathic medical societies incorporated under the Session Laws of 1857, Chapter 384, to elect by ballot, at their annual meeting, or at a special meeting to be held for that purpose, on five days notice, from their members respectively, as many delegates to a State Homœopathic Medical Society to be organized under this act, as there are members of Assembly from such county.

Section 2.—Said delegates shall meet together for their first meeting at the city of Albany, on the sixth day of May, 1862; and being met, not less than nine in number may elect by ballot a president, three vice-presidents, a secretary and treasurer, who shall hold their office for one year, and until others shall be chosen in their places. If the said delegates should not meet and organize themselves at such time and place as aforesaid, it shall be lawful for them to meet at such other time and place as a majority of them shall think proper, and their proceedings shall be as valid as if such meeting had been held at the time and place before specified.

Section 3.—Such delegates, when met together as aforesaid, and such persons as shall be elected in like manner from time to time by said County Medical Societies in accordance with this act, shall constitute a body politic and corporate, to be known as the Homœopathic Medical Society of the State of New-York. Such Society shall be subject to all the liabilities, and entitled to all the powers and privileges of the Medical Society of the State of New-York, incorporated under the act entitled "An act to incorporate Medical Societies for the purpose of regulating the Practice of Physic and Surgery in this State," passed April 10, 1813, and the acts amendatory of the same, not inconsistent with this act; and shall also possess the powers and be subject to the provisions and liabilities of the eighteenth chapter of the first part of the Revised Statutes.

Section 4.—This act is hereby declared to be a public act.

Section 5.—All acts and parts of acts inconsistent with this act are hereby repealed.

Section 6.—This act shall take effect immediately.

Passed April 16th, 1862.

Constitution and By-Laws of the Homœopathic Medical Society of the State of New-York.

CONSTITUTION.

Article 1.—This Association shall be known as the Homœopathic Medical Society of the State of New-York, and its object shall be the advancement of the science of medicine.

Article 2.—The laws of this State, regulating the practice of medicine and surgery, shall be deemed a part of this Constitution.

Article 3.—The officers of this Society shall be a president, three vice-presidents, secretary, and treasurer, all of whom are to be elected by ballot at an annual meeting. The Society shall also, at an annual meeting, elect twelve censors, any three of whom shall constitute a quorum. At all elections of officers a majority of the members present shall be necessary to a choice; they shall hold their offices for one year, and until others shall be chosen in their places.

ARTICLE 4.—The duties of the officers shall be such as are prescribed by the laws of this State; and in addition thereto, such as may be from time to time designated in the by-laws.

ARTICLE 5.—The Society shall be composed of delegates from each county homœopathic medical society and homœopathic medical college in this State, and such other members as may be designated in the by-laws.

ARTICLE 6.—The annual meeting of the Society shall be held in the city of Albany on the second Tuesday of May in each year.

ARTICLE 7.—At any meeting of the Society seven members shall constitute a quorum.

ARTICLE 8.—The Society may have a common seal, with a suitable device and inscription.

ARTICLE 9.—This Constitution may be altered or amended at any annual meeting, by a vote of two-thirds of the members present: provided that notice of such alteration or amendment shall have been given in writing at the previous annual meeting.

BY-LAWS.

SECTION 1. *Duties of the President.*—It shall be the duty of the president to preside at all the meetings of the Society, and call them to order at the appointed time;—announce the order of business;—put to vote all questions which occur in the regular order of business, and declare the result;—decide all questions of order, subject, however, to the usual appeal, which appeal shall not be debatable;—appoint all committees not otherwise ordered;—sign warrants or drafts upon the treasurer for such sums as shall be ordered at any annual meeting;—receive the written opinion of the censors in respect to the qualifications of students examined by them;—receive the sum of ten dollars for each diploma granted by the society, and pay the same to the treasurer;—in case of the decease of any member, appoint a committee, composed of one or more members, to prepare and transmit to the secretary a professional obituary for publication in the transactions of the society. Direct the secretary to call extra meetings, upon the written request of any seven members explaining the reason for such action. Deliver an address at the annual meeting, or procure a substitute; and perform all other duties prescribed by the laws of the State.

SECTION 2. *Duties of the Vice-Presidents.*—In the absence of the president, it shall be the duty of the vice-presidents to perform in the order of election the duties devolving upon that officer; and such other duties as may be required by the Society.

SECTION 3. *Duties of the Secretary.*—The duties of the secretary are as follows:—To provide a book for records;—record therein the resolutions and proceedings of the Society; the names of members, and the date of admission of each; the annual reports made by officers; and all such other things as a majority of the members shall think proper. Deliver the books and papers of the Society to his successor. Lodge in the office of the secretary of State a copy of all the proceedings had at the first annual meeting. Give previous notice of at least two weeks, by letter or otherwise, to each member, of all meetings of the Society. Notify the chairman of each committee of his appointment, which notice shall contain the name of his colleagues, and shall state the nature of the business referred. Authenticate by his signature all the acts and proceedings of the Society. Preserve the documents and other papers belonging to the Society, and allow none to pass out of his hands, or be copied, without the consent of the Society expressed by resolution. Receive and lay before the Society all communications addressed to it by persons other than members, and generally to conduct the correspondence of the Society. At each meeting record the names of all the members present, read the minutes of the one preceding it, and all papers ordered by the president or by the Society. Report all his transactions at the annual meetings. Divide the delegates to the Society into four classes, in compliance with the sixth section of these by-laws; and notify the secretaries of the respective county homœopathic medical societies whenever the seats of any of the delegates become vacant. Cause to be published in the yearly transactions of the Society a list of members, and at each meeting to call the roll of members; and if any are reported as having died during the year, the presiding officer shall proceed in compliance with the first section of these by-laws. In his absence a secretary shall be appointed *pro tempore.*

SECTION 4. *Duties of the Treasurer.*—The duties of the treasurer are as follows:—To receive and be accountable for all moneys belonging to the Society. Pay out on the warrant of the president such sums (subject to draft) as may be agreed upon at the annual meeting. Report in writing at each annual meeting.

SECTION 5. *Duties of the Censors.*—The duties of the censors are as follows:—To examine carefully and impartially each student presenting himself as a candidate for license to practice medicine and surgery, and report their opinion in regard to his qualifications in writing to the president. To decide all questions of appeal from county homœopathic medical societies relating to the examination or qualifications of students.

SECTION 6. *Members.*—This Society shall consist of as many delegates from each county homœopathic medical society as there are members of assembly from such county; also a delegate from each homœopathic medical college in this State; and such permanent and honorary members as shall be elected from time to time in conformity with these by-laws. Delegates to this Society shall be divided into four classes, one of which shall go out of office annually; and it is hereby made the duty of the secretary to classify them, so as to keep the number as nearly equal as possible. The Society may annually elect permanent members, not to exceed in number more than two annually, from each judicial district,—provided that no person be elected a permanent member unless he has served as a delegate, and been nominated at a previous annual meeting;—permanent members so elected shall be entitled to all the privileges of the Society. The Society may elect honorary members not to exceed six in number in any one year, the names of such persons having been presented at least one year previous to their election;—persons so elected shall be entitled to all the privileges of membership. Each homœopathic medical college in this State may respectively elect one delegate to this Society, who shall be entitled to all the privileges of membership. The Society may annually recommend the names of four persons to the regents of the university for the honorary degree of doctor of medicine; provided that the persons so recommended shall possess good moral and professional standing, shall have attained the age of forty-five years, and shall have received not less than two-thirds of the votes of the members present at any annual meeting. The mode of nomination shall be as follows:—The Society shall, by open nomination, present the names of any number of physicians, and afterwards the names of the candidates, or such of them as each member shall please to vote for. The number to be voted for at one ballot shall not exceed four, and the names of those only who shall have received two-thirds of the votes of the members present shall be presented.

SECTION 7. *Fees.*—At the annual meeting the Society may assess a tax of not more than one dollar upon each of its members; also recommend the county homœopathic medical societies to contribute to its funds a sum equal to half a dollar for each member of their respective societies.

SECTION 8. *County Societies.*—The secretaries of each of the county homœopathic medical societies in this State are requested to furnish the secretary of this society, on or before the fifteenth day of January of each year, a statement consisting: 1. Of a list of officers. 2. Of all committees of general interest. 3. Of members, together with their *addresses in full*, and the names and ages of any who have deceased during the year. 4. Of the number of homœopathic physicians residing in their respective counties who are graduates, and the number who are practising without a license. 5. The time of holding their annual and regular meetings. 6. A copy of the proceedings of their respective societies, so far as they may be of general interest.

SECTION 9. *Communications.*—Communications read before the Society become its property, to be deposited in its archives; but no paper shall be published as a part of the transactions without having been submitted to the action of the publishing committee.

SECTION 10. *Committees.*—At each annual meeting there shall be appointed a nominating committee, whose business it shall be to examine and act upon the credentials of members, nominate officers, and all committees having reference to the business matters of the Society. All committees shall be appointed for one year, and until their successors shall have been appointed they shall be deemed to have the various matters referred to them constantly under consideration; and it is hereby made their duty to report at each annual and semi-annual meeting of the Society.

SECTION 11. *Order of Business.*—The following shall be the regular order of business: 1. Calling the roll. 2. Reading the minutes of the last meeting. 3. If a special meeting, the business for which it may have been called. 4. Communications from the president. 5. Unfinished business. 6. Reports of committees. 7. Reading of communications. 8. Report of the secretary. 9. Report of the treasurer. 10. Address by the president. 11. Miscellaneous business. 12. Election of officers. 13. Election of delegates to other homœopathic medical societies. 14. Adjournment.

SECTION 12. *Amendments.*—The by-laws of this Society may be altered or amended at any regular meeting, by a vote of the majority of the members present.

PROCEEDINGS OF SOCIETIES.

Homœopathic Medical Society of the State of New-York.

The Legislature having recently granted an act incorporating this Society, it was deemed expedient to hold a meeting of delegates from the county Medical Societies of this State, for the purpose of perfecting the organization, which has, for several years past, existed as an informal association. Pursuant to adjournment, and in compliance with the act of incorporation, a very respectable number of delegates met in the city of Albany, Tuesday, May 6, 1862.

Inasmuch as a legal status had been acquired, it was considered important to proceed as if the Society had not heretofore existed. The meeting was accordingly organized by appointing Prof J. Beakley, Chairman, and H. M. Paine, Secretary.

Dr. Jones called for the reading of the act of incorporation, which was complied with.

Dr. Clary presented the following:

Resolved, That a Committee on Credentials be appointed.

Drs. Hoyt and H. D. Paine were appointed such committee.

The committee reported the members present, as duly authorized to proceed to organize a State Homœopathic Medical Society, and presented the following resolution:

Resolved, That the delegates here assembled, being duly authorized to represent the Homœopathic Medical Societies of their respective counties, do accept the act of incorporation approved by the Legislature, April 16, 1862, and do now proceed to organize the Homœopathic Medical Society of the State of New-York, under that act.

Dr. Clary offered the following:

Resolved, That a Committee be appointed to report a form of Constitution and by-laws for the Society.

Drs. L. Clary, E. D. Jones, and H. D. Paine, were constituted such committee. The Committee soon presented a report, which, on motion of Dr. Hoyt, was accepted, acted upon by sections, and with slight modifications, adopted.

The Society next proceeded to the election of officers. Drs. Wells and Calkins, were appointed tellers. The balloting for officers for the ensuing year, resulted as follows: *President*, Dr. J. Beakley, of New-York. 1st, *Vice-president*, Dr. A. R. Wright, of Buffalo. 2d, Dr. E. A. Munger, of Waterville. 3d, Dr. W. S. Searle, of Troy. *Secretary*, Dr. H. M. Paine, of Clinton. *Treasurer*, Dr. L. B. Wells, of Utica.

On motion of Dr. Clary, a Committee consisting of Drs. L. Clary, W. A. Hawley, and H. M Paine, was appointed, to nominate a board of Censors, Executive and other Committees. They presented the following report: *Executive Committee*, Dr. E. A. Munger, L. B. Wells, H. M. Paine. *Censors*, Northern District, Drs. S. A. Cook, E D. Jones, D. Springsteed. Southern District, Drs. A. S. Ball, F. W. Hunt, E. T. Richardson. Middle District, L. Clary, W. H. Hoyt, J. C. Raymond. Western District, G. W. Lewis, D. F. Bishop, E. H. Hurd.

Bureau of Materia Medica:—1st, District, Dr. H. M. Smith; 2d, H. Minton; 3d, A. P. Cook; 4th, M. W. Campbell; 5th, J. A. Bigelow; 6th, J. Ralsay White; 7th, C. W. Boyce; 8th, L. M. Kenyon.

Committee of Publication, Drs. H. D. Paine, J. W. Cox, W. H. Watson.

Committee of General Correspondence.—Drs. W. H. Watson, E. A. Munger, H. M. Paine.

Committee of local Correspondence: 1st District, Dr. L. de V. Wilder; 2d, E. F. Hofman; 3d, C. A. Stevens; 4th, E. R. Chase; 5th, A. R. Morgan; 6th, J. H. Foote; 7th, H. S. Benedict; 8th, A. S. Couch.

Nominated for permanent Members: 1st District, Drs. A. S. Ball, J. Beakley; 2d, P. P. Wells, R. C. Moffatt; 3d, H. D. Paine, A. P. Cook; 4th, C. M. Mosher, B F. Cornell; 5th, E. A. Munger, L. Clary; 6th, J. Ralsay White, T. L. Brown; 7th, H. S. Benedict, C. W. Boyce; 8th, C. Ormes, A. R. Wright.

Committees on voluntary communications: 1st, Theory and Practice, Dr. L. McCarty; 2d, Special Pathology and Therapeutics, Dr. C. Dunham; 3d, Homœopathic treatment of surgical cases, Dr. H. Beers; 4th, Obstetrics, Dr. W. G. Wolcott; 5th, Diseases of Females, Dr. J. A. Paine;

6th, Diseases of children, Dr. E. J. Morgan; 7th, Phthisis, Dr. R. R. Gregg; 8th, Uniformity of medicinal preparations, Dr. W. S. Searle; 9th, Importance of an accurate and uniform standard of Homœopathic medicinal preparations, Dr. D. D. Smith; 10th, Epidemics.

1st District, Dr. S. B. Barlow; 2d, Dr. S. S. Guy; 3d, Dr. L. M. Pratt; 4th, S. J. Parsall; 5th, W. A. Hawley; 6th, S. C. Warren; 7th, G. Z. Noble; 8th, A. S. Couch.

On motion of Dr. H. D. Paine, the report was adopted.

Dr. Pratt presented the following: *Resolved*, That a Committee be appointed by this Society, to confer with the different County Societies of the State, with the view of securing signatures to memoralize the Legislature for a portion of Bellevue Hospital, to be put under Homœopathic treatment. Drs. L. Clary, L. B. Wells, and H. D. Paine, were appointed such committee.

The following was offered by Dr. Watson: *Resolved*, That a committee of General Correspondence be appointed, for the purpose of ascertaining, as far as may be practicable, the number and efficiency of county, local, and State Homœopathic medical associations in this country, and if necessary report a plan for securing a thorough organization of the profession. Drs. W. H. Watson, E. A. Munger, and H. M. Paine, were appointed such committee.

Dr. Pratt presented the following resolution, which was unanimously adopted: *Resolved*, That the thanks of this Society are hereby tendered to Prof. T. W. Dwight, for his valuable advice and assistance in drafting the act of incorporation under which we are now organized.

Dr. Hawley presented the following: *Resolved*, That a Committee be appointed to cooperate with other Societies and individuals, in promoting the introduction of Homœopathic treatment in the army and navy. Drs. W. H. Watson, J. Beakley, and H. M. Smith, were appointed such committee.

Dr. Wells presented the following: *Resolved*, That a committee be appointed to procure a suitable seal for the use of tho Society. Drs. H. M. Smith, B. F. Joslin, and E. M. Kellogg, were appointed such committee.

Dr. Calkins presented the following: *Resolved*, That we earnestly solicit Dr. D. D. Smith, to furnish a copy of the paper referring to Homœopathic Hospitals and Dispensaries in Europe, for the archives of this Society. Adopted.

Dr. C. Judson Hill communicated a very interesting and carefully reported case of fatal poisoning by Ergot.

Dr. M. M. Gardner communicated a paper on the Eruptive Diseases to which children are peculiarly liable, his remarks having especial reference to the history, symptoms, and treatment of measles.

Dr. C. W. Boyce communicated an article on Mania à Potu.

Dr. J. Younglove, presented a very interesting paper on Infantile Marasmus.

J. A. Paine read a full and elaborately prepared paper, on acute and chronic Metritis, illustrated by an abstract of numerous cases of practice.

Dr. C. W. Boyce reported several trials of Æsculus-hip.

Communications were received from Dr. H. M. Smith, Secretary of the New-York County Homœopathic Medical Society; and from Dr. L. M. Kenyon, Secretary of the Erie County Homœopathic Medical Society.

Dr. H. M. Paine read a paper on the Importance of organizing County Homœopathic Medical Societies, wherever practicable, in this State.

Dr. H. D. Paine presented the following: *Resolved*, That the various papers communicated at this meeting, and any that may hereafter be received by the Secretary, be referred to the Committee of Publication, with authority to publish at their discretion. Adopted.

The Secretary presented a report, which was adopted, and referred. The Treasurer submitted a report, showing an indebtedness of thirty-two dollars. The report was adopted.

Dr. Hoyt presented the following: *Resolved*, That each member be assessed one dollar to defray the expenses of the Society for the current year. Adopted.

Dr. Clary offered the following: *Resolved*, That the County Homœopathic Medical Societies of this State, be requested to aid the State Society by donating an amount equal to fifty cents, for each of their members, annually; and that the Secretary transmit to each County Medical Society, a copy of this resolution. Adopted.

Dr. Clary offered the following: *Resolved*, That we urge all County Homœopathic Medical Societies, to keep high the standard of medical requirements, and admit no one to membership, who is not a graduate or licentiate. Adopted.

Dr. Springsteed presented the following: *Resolved*, That the semi-annual meeting of this Society, be held in the city of Albany, on the second Tuesday in February, (10) 1863, and that we now adjourn.

The annual meeting is to be held on the second Tuesday of May, in each year.

After adjournment, the members accepted an invitation to partake of a very generous entertainment provided by Dr. H. D. Paine, of Albany.

H. M. Paine, *Secretary.*

Extracts from the By-Laws.

Section 7. *Fees.*—At the annual meeting, the Society may assess a tax of not more than one dollar upon each of its members; also, recommend the County Homœopathic Medical Societies, to contribute to the funds of the Society, a sum equal to half a dollar for each member of their respective Societies.

Section 8. *County Societies.*—The Secretaries of each of the County Homœopathic Medical Societies of this State, are hereby requested to furnish the Secretary of this Society, on or before the 15th day of January, of each year, a statement consisting, 1st, Of a list of officers. 2d, Of all Committees of general interest. 3d, Of members, together with their *address in full*, and the names and ages of any who have deceased during the year. 4th, Of the number of Homœopathic physicians residing in their respective counties who are graduates, and the number who are practicing without a license. 5th, The time of holding their annual and regular meetings. 6th, A copy of the proceedings of their respective Societies, so far as they may be of general interest.

To the Homœopathic Physicians of the State of New-York:

The New-York State Homœopathic Medical Society was first organized, May 15, 1850, more than twelve years ago. It was formed for the purpose of "securing the acquaintance and concurrence of all the regularly qualified and recognised Homœopathic practitioners in the State, and their affiliation into one body, which by promoting mutual intercourse, would contribute to mutual confidence, and by a concentration of the talents, learning and influence of the entire fraternity, would be in a favorable position to advance the interest of the whole. At this time there were several local associations which soon became auxiliary to the State organization, and enrolled upon its list of members were the names of most of the prominent Homœopathic physicians in the State.

After several years it was found that the objects contemplated were not secured as fully as was desirable. To supply this defect, and to encourage the formation of county associations, it was decided to reconstruct the Society upon a basis of representation delegated by County Medical Societies, conformably to the present laws of the State.

Through the efforts of a committee appointed by the Homœopathic Medical Society of Washington and Saratoga counties, (now the Homœopathic Medical Society of Northern New-York,) the law authorizing the formation of County Homœopathic Medical Societies was passed by the Legislature, April 13, 1857.

By this law regularly educated Homœopathic physicians are authorized to form County Medical Societies, and *not until thus organized* are the members of such associations entitled to equal legal immunities and privileges with the members of allopathic Medical Societies.

While we are not insensible of the worth of this privilege, and gratefully recognize the impartial liberality which prompted its bestowal, are we not in danger of neglecting the employment of the very measure which is eminently calculated to build up and strengthen our system of practice? Are we not in danger of "relying too much upon the intrinsic merit of our cause, forgetting that although truth never really dies, yet its final triumph is seldom attained except by the earnest and untiring efforts of its votaries?"

The benefits of local and county associations are obviously of as great value to the Homœopathic practitioner as they are to the physician of the old school. The influence of such associations will largely assist in elevating the standing and increasing the usefulness of the Homœopathic system of practice; and, by affording the profession an opportunity for the mutual communication of experiences, will also prove eminently useful in diffusing a practical knowledge of the healing art. Inasmuch as progress in medical science is chiefly promoted by a comparison and interchange of opinions, and the results of experience, Medical Societies are especially designed to promote these ends, and thus accomplish by association what cannot be effected by individual effort. They afford the Profession frequent opportunity for "consulting together how best to promote the cause and the profession to which their lives and energies are devoted, and to relate their individual experiences, in order to instruct, to encourage, or to warn each other."

County Homœopathic Medical Societies ought, therefore, immediately to be formed in every county where Homœopathy has the requisite number of practitioners. By this means the legal right of teaching is secured; also the permanent establishment of the State Homœopathic Medical Society, and concerted action in the improvement of the materia medica is facilitated.

Let the Homœopathists of this State seriously consider this important subject, and immediately employ this instrumentality as an efficient means of augmenting the future prosperity and influence of the great *Principle* in medicine which they represent.

The following summary of legal requirements should be observed: Five legally qualified Homœopathic physicians are necessary to an organization. When there are not five in one county, Homœopathic physicians in adjoining counties are permitted to associate in forming a Society. The first meeting at which an organization is effected must be held at the county town. The Secretary must file a copy of the proceedings of the first annual meeting in the office of the County Clerk. Each County Society is entitled to elect as many delegates to the State Homœopathic Medical Society as there are members of the Assembly from that county.

H. M PAINE.
Sec. N. Y. State Hom. Med. Society.

CLINTON, Oneida Co., N. Y., May, '62.

The by-laws require delegates to serve four years; also the classification of the whole number, so that one-fourth shall annually go out of office — an arrangement which will contribute largely to the efficiency and usefulness of the Society. The following form will require slight modification from time to time, as new Societies are organized. It is offered with a view of securing as nearly as possible, an equal number of counties and delegates in the several classes.

Term of office expires May 1, 1862:—Albany, Broome, Cayuga, Chautauqua, Columbia, Erie, Cattaraugus, Rockland, Richmond, Schenectady, Steuben, Sullivan, Tioga, Tompkins, Wyoming, Hahnemann Academy of Medicine.—15 counties, 16 delegates.

Term of office expires May 1, 1863:—New-York, Chenango, Clinton, Cortlandt, Fulton, Hamilton, Herkimer, Madison, Queens, St. Lawrence, Suffolk, Ulster, Washington, Wayne, Westchester.—15 counties, 17 delegates.

Term of office expires May 1, 1864:—Chemung, Dutchess, Kings, Oswego, Alleghany, Delaware, Franklin, Genesee, Livingston, Monroe, Montgomery, Orange, Orleans, Seneca, Yates, Homœopathic Medical College of New-York City.—15 counties, 16 delegates.

Term of office expires May 1, 1865.—Ontario, Otsego, Oneida, Onondaga, Rensselaer, Saratoga, Essex, Green, Jefferson, Lewis, Niagara, Putnam, Schuyler, Schoharie, Warren.—15 counties, 16 delegates.

The Annual Meeting of the Homœopathic Medical Society of the County of Kings, N.-Y.,

was held Tuesday, May 13, 1862, at eight o'clock, P. M., at 141 Montague-street, Brooklyn.

Present.—Drs. Richardson, Watson, W. Wright, A. Wright, Allen, P. P. Wells, D. F. Wells, L. Keep, Barker, Morrill, Duffin, Elliott, Saltzwedel, Stamm, Newcomb, Bloede, Perrine, Turner, Minton, Guy, Dinsmore, and Burroughs were present.

The President, Dr. Richardson, presided.

The minutes of the last meeting were read and approved. The chair submitted a letter from Dr. C. H. Skiff, announcing his departure from Brooklyn and withdrawal from this Society, which was placed on file. J. C. Fanning, jr., M.D., was unanimously elected a member of this Society. After the acceptance of the report of the treasurer, Dr. Elliott, the Society proceeded to the election of officers for the ensuing year, which resulted as follows:—*For President*, Dr. Wm. Wright; *Vice-president*, R. C. Moffat; *Recording Secretary*, J. F. Allen; *Corresponding Secretary*, H. E. Morrill; *Treasurer*, W. L. R. Perrine. *For Censors*, Drs. A. Wright, H. Minton, E. J. Richardson.

Dr. Richardson then resigned the chair to Dr. W. Wright, the president elect, who upon taking it, made some very appropriate remarks, acknowledging the unexpected compliment, &c., &c. Article X. of the constitution (relating to the expulsion of members) was amended by inserting the words, "or of conduct publicly scandalous or disgraceful;" also the following resolution was unanimously adopted: "Resolved, that the thanks of this Society be presented to Dr. R. C. Moffat for his faithful and untiring performance of the very arduous duties of recording secretary since 1859.

After some further business the Society adjourned, to meet on the second Tuesday in June at the same time and place.

R. C. Moffat, M.D., *Recording Secretary.*

This is an abstract of the minutes as recorded.

T. J. Allen, M.D., *Recording Secretary* (elect).

Homœopathic Medical Society of Oneida County, N.-Y.

The fifth semi-annual meeting of this Society was held yesterday at the Benton House, in the Village of Little Falls. The President, Dr. W. B. Stebbins, called the meeting to order at the appointed time.

The members present were Drs. W. B. Stebbins, L. Bishop, L. B. Wells, S. O. Scudder, J. C. Raymond, J. W. Mower, W. H. Watson, and H. M. Paine.

Dr. Silas Bailey, of Toledo, Ohio, an honorary member, was also present.

The following gentlemen were elected members. Dr. Abram Guiwits, of Salisbury Centre; Dr. Wm. Landt, of Mohawk, and Dr. John Younglove, of Verona.

The report of the Committee on the "Homœopathic treatment of surgical cases," drew out a lengthened and interesting discussion in which most of the members participated, on the comparative utility of various internal remedies and external applications in cases of lacerated and contused wounds. A mutual comparison of experiences, and the variety of cases related, afford to the members present a rich harvest of facts and data for future practice.

Dr. Wells briefly related the history of a case of acute periostitis of the tibia caused by an injury. The principal remedies were Staph. and Arsen. In cases of extensive lesion of the surface he has found dilute tincture of Arnica a very useful application. He prefers Ledum to Arnica in cases of extensive ecchymosis.

Dr. Scudder's plan in all wounds caused by a sharp cutting instrument is, to apply Arnica during the first three or four days, then follow it with Calendula. He endeavors to prevent the formation of a coagulum at the bottom of a wound, therefore opens and cleanses it freely, and continues the application of a strong tincture of Arnica until the pain ceases. He has observed that the pain continues as long as the hæmorrhage, and that both cease simultaneously.

Dr. Bishop desired to throw out a caution in regard to the free use of the undiluted tincture of Arnica. He has witnessed violent aggravations resulting from the application of the pure tincture. When largely diluted with cold water he has frequently witnessed its soothing effect in relieving the pain even in lacerated wounds.

Dr. Bailey stated that simple cuts, if their edges were properly applied, seldom require any medicinal application; they always heal by first intention. If any application is necessary, he prefers Calendula to Arnica. We employ Arnica to relieve pain, and if a wound is torn by a blunt instrument it will usually be found to afford more relief than any other application. Large clots should, of course, be removed.

Dr. Younglove has been taught to employ Arnica only in bruises and contusions. In case of extensive lesion of the surface Calendula is the appropriate remedy.

Dr. Raymond recommended Arnica for bruises and contusions, Calendula for suppurating wounds and loss of substance; Staphysagria for injuries of the nerves, Ruta for injuries of the periosteum, and Ledum for Ecchymosis.

Dr. Stebbins, of the Committee of Obstetrics, presented an interesting paper on rupture of the uterus, illustrated by a carefully reported case from practice.

Dr. Scudder related briefly the principal symptoms of a similar case which recently occurred in his practice.

Dr. Younglove read a paper minutely discribing the various stages of natural labor.

Drs. Bailey and Wells related cases of monstrosities occurring in their practice.

The Society adjourned to two o'clock.

Afternoon Session. Promptly at the appointed hour the President called the meeting to order.

Dr. Watson read a very interesting paper on the pre-tubercular stage of phthisis. The early symptoms of the disease and its appropriate treatment were clearly and forcibly stated.

Dr. Bishop delivered an address on the principles of theoretical and practical homœopathy. The Dr. also related his experience in the treatment of several malignant cases of diphtheria. He has given Lachesis with good results.

Dr. Raymond has derived great benefit from Ammonia-causticum.

Dr. Landt has employed China and Arsenicum in low attenuations with like results. When other forms of nutriment are inadmissible he would recommend, in low grades of the disease, the use of mild alcoholic stimulants in the form of milk-punch or wine-whey. He regards the use of alcoholic stimulants, however, with distrust, as there is danger of producing cerebral complications.

Dr. Bailey inquired whether their administration in such cases was of any permanent advantage? He believes that cases reduced so low as to require stimulants of this kind will eventually prove fatal.

Dr. Paine has found the administration of Albumen in the form of white of eggs, well beaten up with two or three parts of sweet milk, to produce a very happy effect, and to be swallowed and retained when all other kinds of food were rejected.

The following resolutions, presented by Dr. Watson, and seconded by Dr. Wells, were unanimously adopted:

Resolved, That we view with distrust the custom of patronizing allopathic schools of medicine by the adherents of the homœopathic system, as tending to weaken and detract from the latter that support and encouragement which it justly claims, and which should be freely and fully given by its friends.

Resolved, That the ability and high scientific standing of the Homœopathic Medical College in the city of New-York, renders it a very suitable school for acquiring a thorough medical education.

Resolved, That we cheerfully express our confidence in that institution, and hereby pledge to it our entire and cordial support.

A communication from Dr. C. W. Boyce, an honorary member of the Society, was read.

After the adoption of resolutions of thanks to the gentlemen presenting papers, and to the proprietor of the Benton House for the use of his rooms, the Society adjourned to the third Tuesday in October. H. M. Paine, *Secretary*.

Proceedings of the Tenth Annual Meeting of the New-Hampshire Homœopathic Medical Society.

Pursuant to adjournment, the New-Hampshire Homœopathic Medical Society met at Masonic Temple, Concord, on Wednesday, June 18, at the hour of 10 A. M, the President, Dr. A. Morrill, in the chair—a social and informal meeting having been held in the same place on the previous evening.

The meeting having been called to order and declared open by the President, the records of the last annual meeting were read by the Clerk and approved.

A Committee, consisting of Drs. E. P. Cummings, I. P. Chase, and J. H. Gallinger, was appointed by the Chair, to examine and prescribe for such patients as might present themselves for advice.

Dr. J. H. Gallinger having been appointed to read a dissertation before the Society, was called upon for that purpose, when he presented a paper on the subject of "Diphtheria; its History, Nature and Treatment," after which it was, on motion of Dr. J. F. Whittle, of Nashua—

Resolved, That Dr. Gallinger be requested to furnish a copy of his dissertation for publication in one or more of the city papers, in connection with the proceedings of this meeting, and that each member b supplied with two copies of the same.

The Society then proceeded to the choice of officers for the ensuing year, with the following result:

President—A. Morrill. M.D., Concord.

Vice-President—Wm. B. Chamberlain, M.D., Keene.

Counsellors—J. F. Whittle, M.D., Nashua; E. P. Cummings, M.D., Exeter.

Censors—L. T. Weeks, M.D., Canterbury; J. P. Whittle, M.D., Manchester; Thos. M. Sanborn, M.D., Lake Village; I. P. Chase, M.D., Henniker; A. J. Moulton, M. D., Francestown.

Clerk, Treasurer and Librarian—J. H. Gallinger, M.D., Concord.

The President was excused from reading his annual address.

The Committee appointed to examine and prescribe for patients made their report, which, on motion, was adopted.

On motion, Dr. W. B. Chamberlain was appointed a committee to draft resolutions expressive of the sorrow of the Society in regard to the death of Dr. H. C. Parker, of Manchester. The following preamble and resolutions were submitted and unanimously adopted:

Whereas, Our worthy friend and brother, Dr. H. C Parker, of Manchester, has been called from the scenes of his earthly labors to enter upon an immortal existence; and

Whereas, in his death, the N. H. Homœopathic Medical Society sustains a loss that cannot well be overestimated; therefore be it

Resolved, That we, as a Society and as individuals, appreciating the high professional character, and moral and social virtues of the deceased, do most deeply deplore the sad event, yet trust that what to us seems a misfortune may prove to our deceased brother a blessing inestimable.

Resolved, That the life of Dr. Parker, in all the elements that constitute the true man, was replete with lessons of instructive eloquence and wisdom, while his zealous and untiring devotion to the great principles of the Homœopathic cause rendered him at once a good and a useful member of our Society.

Resolved, That we tender to the family of the deceased our sympathy and consolation in their sad bereavement, and assure them that, so long as we continue to do battle for the principles of our cause, we will ever gratefully remember the eminent services rendered by our deceased brother in the same field of usefulness.

Resolved, That a copy of these resolutions be transmitted to the family of the deceased.

On motion, it was *Resolved*, That each member present be furnished with six printed copies of the Constitution and By-Laws of the Society.

An interesting discussion as to the propriety of using wine for medical purposes was participated in by Drs. Morrill, J. F. Whittle, Cummings, Chase, Chamberlain and others, after which remarks were made by several members, urging the necessity of a harmonious and determined effort to increase the interest and advance the welfare of the Society.

The business of the Society having been disposed of, it was

Resolved, That we adjourn to meet in the city of Concord, on the third Wednesday of June, 1863.

A. MORRILL, M.D., President.
J. H. GALLINGER, M.D., Clerk.

HOMŒOPATHIC MEDICAL COLLEGES.

Homœopathic Medical College of Pennsylvania.

THE fifteenth annual announcement of this Institution, "the oldest by some years of any of the kind in the world," is received. The managers say, they enter upon the year full of faith in their cause and in their men, and that "no previous announcement has been issued under auspices so flattering and so hopeful as the present one." Improvements in the college building furnish an Amphitheatre "unsurpassed by any" in that city of medical schools; and "in immediate connection with it a surgical ward in the hospital is provided,—thus allowing patients who may have submitted to capital operations to be removed without the risk of exposure. By this arrangement students will be enabled to witness, not only surgical operations, but also the superior success of homœopathy as exhibited in the subsequent treatment of patients." The Board of Managers regard the opening of the HOSPITAL as "a marked era in the history of the Institution." It is a desideratum they "have been struggling for years to obtain, regarding it as of immense value to the profession and a *sine qui non* to the student." They have also a college clinic connected with the dispensary, with ample opportunities for attending the clinics held at the Pennsylvania and Philadelphia hospitals. The dissecting room has been improved at great expense. The "museum is richly endowed with abundant material for illustration;" and it is claimed "that the facilities for obtaining a thorough education in the profession of medicine in all its various branches, are as perfect in this college as in any institution in the country." The demand for thorough homœopathists is everywhere made. "Indeed, in every community where there is a a well-sustained old school or *irregular* practitioner, an intelligent, educated and active homœopathic physician is wanted."

Philadelphia has been for three-quarters of a century almost the centre of gravity to the medical students of this continent. Thither the aspirants for medical honors turned their steps seventy years ago; and found, on reaching the "Medical Department of the University of Pennsylvania," that there was no such thing as a medical college, but Shippen, and Wistar, Kuhn, Rush, Hutchinson, and Griffiths were ably holding forth in private houses, and teaching young America the future glory of the Great Republic. Since that time the years of another century have rolled rapidly past. Philadelphia has still some fame as a centre of medical instruction. A new theory and system of practice has grown up in the world; it was proper that the city of Penn should be the first city in the world to invite its votaries to set up their altar and erect a temple for the propagation of the new faith. The first homœopathic college in the world can now look back on many years of success. May the remaining years of this century of wonderful events witness its growing prosperity.

Hahnemann Medical College, Chicago.

THE summer course of lectures for 1862 commenced on Wednesday, June 11th, in the College building, and will continue during the summer months. The clinical lectures will be continued at the College Dispensary every Wednesday and Saturday, by Prof. R. Ludlam. The summer course will be free of expense to medical students and physicians. The winter term for 1862–63 will commence on Wednesday, October 15th. All correspondence should be addressed to A. E. SMALL, M.D., Dean, P. O. Box 550, Chicago, Ill.

It is impossible to read the announcement of the annual courses of lectures regularly given at Chicago without recalling some of the romantic associations that cluster around the name of the Queen of the Lakes. The name has been familiar to history for nearly two centuries, though exerting little influence of commerce or science a quarter of a century ago. In 1823 Mr. Calhoun, as Secretary of War, thought the region south and west of Lake Michigan might be worth exploring, and sent Major Long to perform that duty. The party encountered great hardships, talked with the Pottawatomies on the St. Joseph's river, found the prairies between that river and the Lake, *heard* of the Kankakee marshes, and reached Chicago. But they found no beauty in the place or its inhabitants, its dilapidated fort or its bark shanties. The report says: "Chicago offers no inducement to the settler;" but admits, that in some distant future day, when the country between the southern extremity of the "Big Lake" and the "Big River" shall be settled, Chicago may become a point from which grain may be shipped. The prospects of agriculture were far from encouraging in 1823. The United States garrison at Chicago consisted of a few industrious soldiers, who had nothing else to do; but the government had never been able to get them to raise as much corn as they could eat, and was obliged to supply them with grain brought in wagons from St. Louis, or in schooners round the lakes from Detroit. The contrast between those times and the present we do not propose to draw here. Chicago has become not only a wheat market capable of supplying its own people, but the greatest of *all* wheat markets,—able to feed the millions that are starving in foreign countries. Her own population we can never learn till the census tables shall be corrected every week. She has become the rival of Philadelphia in every thing, even in medical education. Her old school medical colleges we leave to be spoken of by others, but rising above them, stands the Hahnemann Medical College, of which we could speak, did not its able representatives in every number of our JOURNAL speak for it.

Western Homœopathic College, Cleveland, Ohio.

Just as we go to press we receive the annual announcement of this popular and flourishing College. Of its claims on the profession, its past prosperity, and the ability of its faculty, this Journal and the *United States Journal of Homœopathy* have often spoken. We notice now with satisfaction, that many further improvements have been made in the arrangements and means of instruction which prove the determination of the managers to sustain and extend the established reputation of their school. They now apply microscopy to healthy and diseased tissues; have improved the college building; furnish abundant means for the study of anatomy, and further say:

"Prof. Wilson, who has the City Hospital in charge, will, during the session, give to the class regular and frequent access to the various wards. Here the student will be required to attend. This, conjoined with the Dispensary at the College, furnishes all the clinical privileges for which the student has time or can profitably enjoy.

In conclusion, we ask attention to the central location of the College, rendering it thereby readily accessible from all parts of the country; and to the healthfulness and pleasantness of the city—securing to our students exemption from sickness, and the avoidance of prejudices common toward medical classes."

Central Homœopathic Dispensary, No. 15 *East Eleventh-Street, New-York.*

The Eighth Annual Report presents the following results for the year ending April 1, 1862:—During the past year 1,047 cases have been treated, and 2,554 prescriptions given, making a total of 7,545 cases and 20,857 prescriptions since the foundation of this Dispensary. The expenses of the past year have been only $227.50, and the receipts during the same period $210.00.

Up to the present time this Dispensary has been managed, both in its pecuniary, as well as its medical affairs, by the physicians. For several years past it has been the purpose of the physicians to place the pecuniary and business arrangements of the Institution in the hands of laymen; this will be accomplished during the coming summer.

This Dispensary was established May 1, 1854; incorporated April, 1858. Open daily, Sundays excepted, from twelve to one, and from three to four, P. M. It has always been gratuitously attended by able physicians, who have been distinguished for close adherence to the principles of Hahnemann. Medicines generously furnished gratuitously by John T. S. Smith and Sons.

Attending Physicians—Drs. E. M. Kellogg, B. F. Joslin, jr., T. Franklin Smith, H. M. Smith, W. Freeman, Benj. Lasius.

Michigan State Institute.

The annual meeting of the Homœopathic Institute of the State of Michigan will be held in Detroit, on the 25th and 26th of September, 1862. As this is the time of the Michigan State Fair, unusual facilities will be offered for a general attendance. Dr. J. C. Hempel is expected to deliver the annual address. Essays and other papers will be presented by Drs. E. M. Hale, Sawyer, and other prominent members of the profession. Important business is expected to come off before the meeting.

The American Homœopathic Review. Vol. III., No. 1. July, 1862. J. T. S. Smith and Sons, 484 Broadway, New-York. pp. 48.

The third volume of this able homœopathic monthly opens with the following announcement of the principles on which it will hereafter be conducted: It "will advocate the law of cure first established by Hahnemann," and "will call particular attention to the value of high potencies, prepared according to the method of potentization discovered and practised by him, believing that experience has established their preference to crude drugs in the treatment of diseases." It is proposed to give considerable space to the subject of drug provings; to publish reports of societies, dispensaries, and colleges, reviews of new works, abstracts of the contents of homœopathic journals, scientific discoveries, &c. Editors: Drs. P. P. Wells, Carroll Dunham, and Henry M. Smith.

The Homœopathic Observer. Edited by the Honorary Medical Officers of the Manchester and Salford Homœopathic Dispensary, May, 1862. Manchester and London. pp. 16. No. 1.

The publication of a monthly periodical, devoted to the diffusion of reformed medicine, under the direction of the medical officers of a homœopathic dispensary, promises well for the cause of reform in the centre of the manufacturing population of England. The editors enter bravely into the defence of the doctrines of homœopathy, so far as the general applicability of the law of similia is concerned, but they are not convinced of the value of high dilutions. We have often alluded to the position they occupy, and will not take up the subject here. If the editors really think, that "the dose has been carried to a degree of minuteness altogether inert," and that "as soon as we reach a degree of dilution which may be used with safety," or without producing medicinal aggravation, "it would be useless to go beyond this, although a smaller quantity *might possibly* possess curative properties," we hope their success will be satisfactory to their patients. We do not doubt that homœopathy in the form they recommend is a great improvement on anything else known to old school men in that country or in this.

Materia Medica.

PATHOGENETIC CHARACTERISTICS OF DRUGS.

By J. S. Douglas, M.D., of Milwaukie, Wisc.

PETIVERIA-TETRANDA.

Deep sleep, commencing early and lasting longer than usual for three or four days,—a very uniform symptom. Numbness and compressive sensation, as if a warm bandage were wrapped round the head. The body seems insensible when she is lying down, and as if in a swoon. When walking she feels as if she did not touch the soil, and as though she would fall. Sensation as if the head were full of warm water. Sense of fulness in the head as if it would split. Numbness in the fingers and arms. Numbness of the lower limbs. Veins of the nose swollen and bluish. Benumbing and deep-seated pain, with pressure in the temples, and dull pain on the vertex. At the moment of lying down in bed, explosion in the head, the noise passing through the ears. Laming numbness in the arms and legs.

The deep sleep, the partial and general numbness, with the fulness, pressure, and pain in the head, seem to point to apoplectic conditions and tendencies.

PHELLANDRIUM-AQUATICUM.

The head feels large, full, and heavy, as if it would be drawn backward by a weight in the nape of the neck. Sounding in the brain as striking a piece of silver, early in the morning, waking one, and gradually going off. Movement to and fro in the forehead, almost as if the head were moving to and fro. The dull headache and the majority of the head-symptoms disappear at dinner.

Red, burning nostrils, swollen (the upper lip also swollen), with coryza and hoarseness.

Red vesicles, burning like fire, on the right border of the tongue.—Sensation on the left side of the neck, below the jaw, as if a red hot iron were moved along close to that part. Eructations smelling almost like bed-bugs.

PHOSPHORUS.

Besides the great depression of spirits in common with Calc., Graph., Hep., &c., there is a special recurrence of this symptom about twilight. Anxiety and heat of the head, with hot, red hands, visibly relieved by standing. Special uneasiness and anxiety during a thunder storm. Fearfulness, with horror, as if a horrid mask were peeping out from every corner. When thinking intensely one is attacked with a heat as though hot water was poured over him. Absence of shame, and indecent exposure. (Bell. and Nux. produce a similar state.) Spasmodic laughing and weeping. Laughing against her will, even when she feels sad. Clairvoyance. Laughing, coughing, or stretching the limbs causes a throbbing in the head. Sensation in the head as if a foreign body were moving about in it. Sensation of twitching on the vertex, as if pulled by the hair.

Shining, painless, uninflamed tumor on the forehead, with violent headache over the eyes. A spot on the scalp over the ear became bald. The roots of the hairs seem dry, and the hairs fall out.—Sensation as if the skin on the forehead was too tight, with anxiety. Tickling of the periosteum round the eyes. Frequent very transient burning of the eyes. Sensation of the outer canthus as if something salt or smarting were on it. A kind of puffy swelling of the right upper lid. Swelling of the left lid, with pain of the orbital bone when touched. Inclination to look only with one eye. Frequent attacks of sudden blindness in the day-time. Large black spots hovering over the eyes after a meal.

One's own and other's words resound in the ear like an echo. (See Phos.-ac.) Every tone uttered distinctly is returned unchanged.—Dark redness of one of the alæ nasi, with smarting pain when touched. Swelling of the nose during catarrh. Feeling of dryness of the nose, and sensation as if the walls would adhere together.—Excessive almost blue redness of the cheeks, without feeling hot. Painless swelling of the cheeks and gums. Swelling of the root of the tongue. Intolerable tickling of the palate. Blisters on the palate, bursting and suppurating.

Eructations tasting of oranges and of olive oil.

Various colored greasy pellicles on the urine, which smells of garlic and sulphur. (See Hepar.)

Morning nausea as if from hunger.

Shocks of the heart for hours after dinner, with cough and flushes of the face.—Violent pulsations below the pit of the stomach.

She hawks up a gray, saltish mucus. Irresistible sleep after dinner. (See Calc) Great weakness of the whole body after a meal. Pulsations in the stomach after meals Feeling of coldness and actual coldness after a meal.

Tenesmus, sometimes frightful, in the rectum, some time after a stool. Gray stool.

Before and after the menses, swelling of the gums and cheek. During the menses, toothache commencing at dinner.

Pain in the os coxygis as if ulcerated.

Pain in the elbow-joint as if broken.

The scurf on an ulcer smells like herring pickle.

PHOSPHORIC-ACID.

Yellow spot in the white of the eye towards the inner canthus. Both eyes look glassy, the eye-balls moving almost involuntarily, mostly when staring. Faint, glossy, staring look. Excessive dilatation of the right pupil, increasing in proportion as he made an effort to see; seven days after it was four times larger than the left.

Every sound re-echoes loudly in the ears. (See Phos.) For a long time musical sounds are very disagreeable.

Swelling on the dorsum of the nose, with red spots on the dorsum and sides. Itching scurf on the lower part of the septum.

Bitter mucus gets into the mouth and fauces from the posterior nares.

Tension of the skin of the face, as if albumen were drying on it.

The lower lip is chapped in the middle. Oblique fissure in the right side of the upper lip, with sore pain, especially when moving the lip. Burning, painful pimples on the vermillion border of both lips. Ulcerated, deep sores on the vermillion border of both lips, with tensive smarting when not touched; they form a dark skin, which is easily rubbed off when washing the face; in this case the sores bleed and smart when touched. Yellow-brown, crust-like eruption, with pus on the lower lip, towards the corner of the mouth; painless.

Sensation as if something had lodged behind the palate, impeding deglutition.

Putrid, smoky taste —White-gray diarrhœa.

Milky urine, with bloody, jelly-like lumps, or as if stirred with flour.

Male genital organs. Humid, itching vesicles on the frenulum. Drawing soreness in the testicles, as if excoriated. Burning tearing in the left testicle, and burning in the prostate glands with frequent erections. Swelling in the left testicle. Hardness and tension of the spermatic cord. Swelling of the spermatic cord with dullness of the head. Falling out of the hair of the genital organs. (See Nit.-ac) Sudden relaxation of the penis during an embrace, when the semen is on the point of being emitted, preventing the emission. Cough with expectorations tasting and smelling like herbs.

PLATINA.

Peculiar illusions of fancy, as: On entering a room, after a walk, she imagines that every thing around her is very small, and every body inferior to her, both in body and mind, and that she herself is tall and elevated. Looking down contemptuously and pitifully upon venerable people, against her will, in paroxysms Proud feeling with over-estimate of one's self, &c.

Headache, as if the head were jammed in. Tensive, numb feeling in the whole sinciput, as after a blow, extending as far as the nasal bone. A cramp-like contraction suddenly strikes through the head, from the right to the left temple. Pain in the scalp, intolerable at night, as if lying upon hard stones; he had to sit up. The whole nervous symptoms as a group are peculiar, representing in an eminent degree a hysterical state not unfrequently met with in nervous excitable females. Excessive sexual excitement in females, especially in lying-in females.

PLUMBUM.

We are to find the peculiarities of Plumbum rather in its groups than its individual symptoms. The colicky pains with the accompanying symptoms are peculiar. The pale color of the gums is common to Plumbum and Staph., and the blue color to Plumbum, Oleander, and Sabadilla; but the group of symptoms of the mouth and teeth is peculiar. The same may be said of the pulling, tearing and contractive pains of all the genital organs, and also of the intense and persistent pains of the limbs and whole body without redness or swelling, and the peculiar order of their occurrence.

PODOPHYLLUM-PELT.

Taste of fried liver in the mouth at night. Evacuations of darkish yellow mucus which smells like carrion. Frequent chalk-like stools which are very offensive with gagging and excessive thirst in children. Stools muco-gelatinous, small and unfrequent, with flatulence and pains in the region of the sacrum. Symptoms of prolapsus uteri, with pain in the sacrum and muco-gelatinous stools. Pain in the region of the ovaria. Numb, aching pain in the region of the left ovarium, with heat running down the left thigh in the third month of pregnancy. Softness of flesh with debility in children.

PULSATILLA.

Fear of ghosts in the evening. (See Ran.-bulb. and Ars.) Envious, greedy, would like to have everything to himself. The mental and moral symptoms of Puls., as a whole, are peculiar Inflamed, red spots in the whites of the eyes near the cornea. Pain in the eye, as if scraped with a knife. Illusions of smell—imaginary smell of old coryza, of coffee and tobacco. Taste in the mouth of putrid meat, and of putrid herbs in the back part of the throat. Fresh meat tastes putrid. Taste like clay or earth. No drug produces such a universally *bitter* taste of all kinds of food. Sensation, as if a worm were creeping along the œsophagus. No tenesmus, but constant desire in the more remote intestines for an evacuation without result. Urine with a ring of violet-colored mucus on the top with sandy sediment. Burning-stinging in the vagina and labia. (See Sulph. and Nit.-ac.) *Before* the menses, yawning, stretching, and nausea. *During* the menses, hemicrania, cardialgia, pressure in the abdomen and small of the back, as from a stone, with disposition of the lower limbs to go to sleep, ineffectual urging to stool, and spasmodic, almost burning pains in the abdomen. Before, during, and after the menses, sticking and stitches in the sides. Suppression of the menses with feeling of fulness of the pelvis and coldness of the body. Cough with expectoration of black, coagulated blood. (See Nit.-ac) Cough only on lying down. Before the paroxysms of fever, drowsiness and want of appetite. During the heat, pains, like labor-pains, sleeplessness, and starting when falling asleep. Headache deep in the orbits when moving the eyes, as if the forehead would fall out, and as if the frontal bone were too thin, with gloomy feeling of the head. Hemicrania, as if the head would burst, and as if the eyes would fall out Headache, as if from intoxication and watching. (See Nux-v.) Headache, as if from overloaded stomach or from eating fat meat. Green, fetid discharge from the nose. The tongue feels broader than usual. Gulping up of sour fluid after drinking coffee. Gulping up of water preceded by a sensation at the pit of the stomach, as if something was torn loose. Hiccough after drinking. Desire for ardent spirits. Drawing, pressing pains towards the uterus, with desire to vomit every morning. Drawing, tensive pains in the abdomen, like labor-pains. Suppression of the lochia, with burning and feeling of fullness in the parts.

RANUNCULUS-BULB.

Peculiar eruptions in the upper extremities, and, perhaps, peculiar sensations and pains about the chest.

RANUNCULUS-SCEL.

Burning soreness behind the xyphoid cartilage. The abdominal walls are painful. The whole chest feels weak and bruised. Violent and continued gnawing behind the lowest portion of the sternum, arresting the breathing. Great sensitiveness of the integuments of the chest.

Phosphoric Paralysis. By DR. GALLAVARDIN, of Lyons.

IN some of the late allopathic journals we find four cases of paralysis cured by Phos., two cases produced by the same agent, and a series of symptoms, proving the specific relations of Phosphorus to the animal muscular system, even in different species, as in mammalia and batrachia.

I. *Paralysis Cured by Phosphorus.*—1. Paraplegia, with œdema of both extremities, after typhus, in an old lady, cured by Phos. (Gaultior-Claubry.) 2. Paraplegia and paralysis of sphincter vesicæ, with œdema of both extremities, after an acute disease, in a child. (The same.) 3. Paralysis of the right leg, with œdema, after acute disease, in a child. (The same.) 4. Paralysis in a young girl, cured by a liniment containing one grain of Phos. Patient had taken before in three days three grains of Phos., reproducing gastrodynia and hæmatemesis, without relieving the paralysis. (*Bibl. Med.*, 1813, 39, p. 269.)

II. *Paralysis Producad by Phosphorus.*—1. Paralysis of the hands. J. Mifflet was poisoned several times by his wife, who mixed the fuse of matches with his food and drink. He did not die, but remained ever afterwards paralyzed in his hands. (*Annal. d'Hyg. publ. & de Med. legale*, 1855.) 2. Paralysis of the left arm. Ch. Dieffenbach, a druggist, proving Phos. on himself, took six grains in three days;—the chief symptoms before his death were: severe and continuous nausea, eructations smelling of garlic, spasmodic constrictions, paralysis of the left arm, delirium. (*Nouv. bibl. Med.*, 1829.)

III. *Different Observations on the Pathogenetic Effects of Phosphorus.*—Muscular power increases to double its strength; (Al. Leroy, Kouttatz). Increase of muscular irritability; (Fr. Pilger). Destruction of muscular irritability in frogs; (Giulio of Turin). Tremor of the body, with severe convulsions, and exhaustion of vitality; (the same). Severe convulsions, vertigo, delirium, and slow heavy speech (paralysis of tongue) precede death produced by Phos.

IV. *In Trials with Phosphorus on Animals*, Prof. Mayer came to the following results: It acts, 1. Negative on the sensitive system of nerves,—that is, abolishing sensibility, decreasing from the periphery to the brain, where consciousness is very little disturbed in the beginning. 2. On the voluntary motor nervous system—hindering and diminishing the motory power, even paralyzing it, or abolishing the irritability of the muscular nerves, and the power of contraction of the muscular fibre, and at last abolishing the power of the will. 3. It acts on the involuntary nerves and muscular fibre of the heart, paralyzing, decreasing its pulsation, disturbing its rythmus, and at last producing a total cessation of the heart and its systole, and thereby of replenishment of the blood. 4. On the respiration Phosphorus acts, decreasing its number, and palsying it to a perfect cessation by paralyzing the muscular nerves of the thorax and diaphragm. 5. It produces decrease of temperature in consequence of the diminution, debilitation, and suspension of the pulsation of the heart and the respiration. Phosphorus therefore withdraws heat and acts as an antiphlogistic. The animal dies by cold, or it gets comatose, dull, and stiff, as in death by congelation.

V. CONCLUSION.—Phosphorus has, therefore, cured one case of paralysis of the third pair of nerves, one of the sixth pair, one of the sphincter ani, one of the right leg, five paraplegiæ, one hemiplegia, two paralysis without mentioning its seat; and has produced one paralysis of the arm, two of the hands, one impotence after priapismus, one paraplegia, one incomplete paralysis of the tongue, one increasing general paralysis, where the mind remained unclouded. Phosphorus is therefore indicated: *a*. In paralysis with swelling of the affected parts. *b*. Phos. produces white urinary sediments (albumen?), and œdema of the upper body (hands, face, eye-lids), and is therefore a remedy in the symptomatic paralysis of Bright's disease, or for albuminuria, and for puerperal paralysis. *c.* Phos. has cured a paralysis of all the extremities, and of the sphincter ani and vesicæ after apoplexy. It has produced the different palsies, also hæmorrhages everywhere (from wounds, scars, anus, hæmorrhoids, uterus, nose, lungs, stomach), and congestions (perhaps also bleedings) in the brain. Phosphorus is therefore indicated in palsy after apoplexy, especially when connected with œdema. *d.* It is indicated according to the law of similia in chlorotic palsy, with swelling of the cellular tissue, pale yellow face, and bloating under the eye-lids. *e.* Some German physicians use Phosphorus in low dilutions for four to six weeks against softening of the brain. I would remark, that this disease corresponds to several remedies, and it shows itself under different forms; or rather, softening of the brain is not even a disease, but an organic trouble, underlying several diseases, and needing therefore different remedies.

We must fix first the pathological indications, before we arrive at the therapeutical. We must study general pathology *de novo*, without which a good nosology and nosography are impossible.

The disease is a state against the rule of man. The symptom is a state against the rule of the function. The organic change is a state against the rule of the parts—the tissues. Such a change with the symptoms forms the disease (locum affectum). [Excuse this deviation, necessary to explain my ideas of softening of the brain and its treatment.]

An over-irritated life, sleeplessness, sexual excesses, immoderate use of spirituosa and of other irritabilia, over-exertion of the mind, financial troubles, depressing emotions, may through continuous labor of the brain (ubi stimulus, ibi inflexus) act as objective causes, and thus incite the individual disease (as gout, syphilis) to predisposing objective causes, producing particular troubles in the brain and spinal marrow. But the equality of the seat does not carry equality of form. This is modified according to different causes. According to our therapeutical rule Phosphorus is indicated where the softening is a symptom of hæmorrhoids; but even then, before we use it, we must relieve the portal veins by suppositories; Aloes (internally), according to the axiom: ab internis ad externa, bonum. The revulsive, derivative, and homœopathic treatment support here one another to the benefit of the patient.

In softening of the brain and spinal marrow, produced by sexual excesses, Phosphorus is indicated.—*Hirschel's Homœopathic Clinic*, May, 1862.

Chelidonium-majus in Neuralgia of the Eye-brows and Temples. By Dr. Firmot.

From clinical facts in his practice the Doctor drew the following conclusions: 1. Chelidonium-majus corresponds to every age, sex, and temperament. 2. It can be given at any time of day. 3. It is the specific against neuralgia of the eye-brows and temples. 4. The remedy can be repeated every two hours, especially during the intervals. 5. The best success follows in hammering, burning, stitching, or tearing pains. 6. It is indicated when the paroxysms begin periodically, with yawning and chilliness, and finish off with light sour perspiration. 7. Chelidonium is effectual when the pain begins slightly in the eye-brows, and increasing, passes over the frontal region, the orbita, and the eye of the same side, which is reddened, protruding, full of tears, and sensitive to the light. 8. Pressure with the hand produces a slight amelioration; light, fresh air, any motion of the hand, and especially bowing, produce severe aggravation.—*El. Criterio Medico*, May, 1861.

Errata.

In Dr. E. M. Hale's Article, page 49 of this number.
On page 51, line 1 at top, for "hyragogue" read: *hydragogue.*
" " 51, line 12 from top, for "long" read: *large.*
" " 52, line 5 from top, for "helleborine" read: *helleborism.*

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Original and Translated Papers.

ARTICLE XI.—*Humanity, Homœopathy, and the War.* By JOHN T. TEMPLE, Professor of Materia Medica and Therapeutics in the Hom. Med. College of Missouri, Hon. Member of the Illinois Homœopathic State Association, &c.

> **"Rien n'est brutal comme un fait."—"Nothing so brutal as a fact."**
> BROUSSAIS.

WE believe in facts,—we shall deal in facts. And first of the war;—morally, politically, and in a civil aspect it has no parallel in turpitude, no similarity in infamous wickedness and degrading barbarity. But in another, and a very important aspect, it presents facts for the consideration of the people. Let us look at the case fairly. Rebellion, unnatural and fiendish, is inaugurated to overthrow our government of law and liberty. At the call of our country, hundreds of thousands of patriot hearts swelled with delight at the privilege of periling life in defence of the constitution and union. While thus impelled by the noble feelings of patriotism, little did they imagine the injustice, the cruelty, the despotism which was to be practised on them when prostrated on beds of suffering incurred in the service of their country. Surely Congress cannot be aware of the facts, or they would abate the evil. Are personal rights abrogated by the Constitution in time of war? Has a soldier no right to think for himself, and to ask for that relief from suffering and death which his experience for years has taught him is the best? Has Congress a right to establish a privileged order in medicine, in violation of the spirit and genius of our government?

Let us look at the facts developed by this war. The law, by army regulation, requires two surgeons for every regiment; but the law does not say that these surgeons shall be allopathic. Common humanity suggests, that a selection should be made of the best physicians and surgeons to be had in the country. Has it been done? The sad hearts of widowed thousands exclaim, no! Thousands of mothers bereft of their sons by ignorant and incompetent physicians cry: No! no!

It is well known, that the large proportion of deaths in our army takes place in our hospitals, and not on the battle-field; that diarrhœa, dysentery, pneumonia, typhoid fever, &c., are the great destroyers of our soldiers, and not the ball and the bomb. Should not the best means known for the cure of these diseases be procured for the soldier? And have they been? We shall show that they are carefully excluded from the army. How? We say by the despotism of an old fossil army corps of physicians (surgeons so-called), who, like Rip Van Winkle, have slept for one hundred years, and are ignorant of any improvement in the treatment of disease. This old and decaying system of allopathy, which imparts its livid vitality to this corps, has become so sensitive by decay and disease, that it is thrown into convulsions at the name of innovation and improvement.

Every state appoints a board of examining physicians, before which all applicants for the position of surgeon must present themselves, be examined, and pass an examination according to the old stereotyped routine of *allopathic lore.* Should an applicant state that he is a homœopath, although he may have graduated in an allopathic college and practised the old routine system for years; nay, although he may have been a professor in a Philadelphia college, and stood high as a teacher of the "medical art," yet he was refused an examination on the plea, that homœopaths were not admitted into the army. This is the first edict in this domain of despotism, and by no means so oppressive as the second,—namely: That when an applicant has been passed with high encomiums on his proficiency, has gone into the service, given great satisfaction to his regiment, and become very popular with officers and men, on account of his success in treating diseases, and his kind and gentlemanly deportment, edict No. 2 is issued, revoking his commission, because this examining board has ascertained that he is a homœopath.

I am stating only cases which have come under my personal notice. We shall now give a few examples of the fruit of this despotism.

Mrs. ——, of C——, Ill., had a son who was wounded at Fort Donelson. "He was brought to the Fifth-street Hospital of this city for treatment. For a time the wound appeared to be healing, and a friend of the family, with whom I am personally acquainted, sent the good news to the mother. The reply was: '*If George can have homœopathic treatment, I shall feel satisfied.*' On inquiry I ascertained, that this wish could not be gratified. In a few days a dispatch was sent to the mother, that George was much worse, having the typhoid fever with delirium. The mother was now in agony. In her second letter she says: "*I give up all hopes of seeing my boy; the treatment will be fatal to him,—he will be stimulated with brandy when his poor brain is already on fire.*" The mother's prediction was correct. Poor widowed mother! Little did you or your noble son think, when you sent him forth to the war, that in case of sickness, he must be treated by physicians in whose practice you had no confidence, and that your wishes and his were alike to be refused. In her third letter the noble woman says: " If my son had received his death-wound on the battle-field, I could have borne it; but my grief is rendered doubly poignant by the reflection, that if he had been *allowed homœopathic treatment*, instead of the unnatural brandy and water treatment, he might have been spared to me."

Such cases are numerous in our hospitals.

For this case I am indebted to Dr. P. E. Johnson, of our city.

A noble young man, nephew of one of our first lawyers in St. Louis, was shot by a rifleman in an engagement in North

Missouri, the ball striking a little on the left side of the medial line of the chin, traversed the lower maxillary bone to the angle of the jaw, thence downwards and backward, just missing the carotid, and under the sterno-cleido-mastoideus, and through the centre of the splenius capitis and cancullaris, out through the skin. He was treated by the ordinary routine of stinking unguents on the wound, without any benefit, until his uncle became alarmed for his safety, and removed him to his house, where I found him suffering under a high state of inflammation. A large sac of pus extended down the neck to near the clavicle. By placing him in a proper position, the matter was emptied from the sac (through the opening made by the ball) by gentle pressure. By the use of Calendula internally and externally, suppuration was arrested in four days, and in ten days I discharged him cured. He has been in a number of battles since, doing good service to his country. I think it very probable, that two weeks more treatment of the same allopathic kind would have finished this noble and brave fellow.

Case 2.—F. J., a young man of the First Missouri Artillery, was taken down with the typhoid fever, from the great exposure in the three days' fight at Fort Donelson, was brought to his friends in our city, away from the hospital. When I was called to see him, a violent diarrhœa had been superadded to his fever; deep anxiety and alarm were stamped on the countenance of his young wife. His relatives, keenly alive to his dangerous condition, asked, can he be cured? Our confidence in homœopathy induced us to reply in the affirmative, and the result proved the value of homœopathic treatment.

Case 3.—Mr. J. W., was brought from Pittsburg Landing to one of our city military hospitals, suffering from typhoid fever. After he had been in the hospital over one week, an acquaintance of his, residing in St. Louis, heard of him, and visited the hospital. He found the young man prostrated and delirious, but *abundantly supplied with brandy and Quinine.* He removed him to his house, where I was called to attend him, as he and his family were homœopaths. I found him utterly prostrated,—a hectic flush on his cheeks, and a violent cough. His mother, residing in Toledo, Ohio, was written for, and soon came to nurse and comfort her soldier boy. In nineteen days the mother's heart beat high with joy and gratitude, as she and her boy started home.

Case 4.—Mr. W. S. S. was severely wounded in the arm—the ball entering the fore-arm about three inches below the elbow, and passing up the arm and out about four inches above the elbow. He was brought up to this city from Pittsburg Landing, and taken on the way with the typhoid fever. Having a brother residing here, the poor sufferer was taken to his house, and there treated allopathically, until his brother was told that all hope was gone, and that he could not live *six hours longer*. As a last resort, when faith and hope had died, homœopathy—the despised homœopathy—was appealed to, to vanquish a disease which had fairly beaten old physic, and driven him from the field. This case I would like honest old Abe and every member of Congress to have seen. There lay the patriot warrior, unconscious of his own condition, or the agony of his lovely wife and friends around his bed. Low muttering delirium had supplanted consciousness, and overwhelmed the domain of reason in wild chaos. Ointment on the wounds, and blister plasters on the chest, were the outward and *refined* aids to the more powerful internal action of Quinine and Morphine. The suppuration from his wounds was considerable, and the appearance of the one above his elbow was gangrenous, and around the opening black in several places. The suppuration was speedily arrested by the application of Calendula into the wound, and having the parts injured kept wet with the Calendula, diluted one-half. By the use of Belladonna, Arsenicum, and Muriatic-acid, this noble Iowa warrior did not "die in six hours," did not lose his arm, nor his life; but was saved to his family, his friends, and his country—a living commentary on the medical despotism which is sanctioned by our government, at the sacrifice of thousands of our citizen soldiers.

Surely no time ever occurred when the cries of humanity were so numerous and loud against the tyranny of the medical directors; for, though "medicine lies buried in thick night, war and pestilence hold up ghastly torches to display the want of *public succor*, by lifting for a fold or two the darkness which shrouds the field of mortality and pain."

Our patient, with his lovely wife and infant boy in four weeks, with glowing gratitude for the past, and bright hopes for the future, bade us adieu to return to Burlington, their home. Mrs. S. expressed repeatedly her astonishment at the action of the Calendula in "stopping the mattering and curing the wound in five days." These worthy people knew nothing of homœopathy.

Of the many cases which this wicked war has brought to our notice, these four we deem sufficent for our purpose at present in exposing the abomination of allopathic exclusivism. It is a fact, patent, that the quantity of healing in a community suffers by all *privileges* given to one set of professors. Can any reason be given why Congress, in medical cases as in others, should not interfere to protect the liberties of the soldier, and modify the institutions which have grown up under the despotism of the colleges?

In surgery, numerous operations are constantly performed which are not warranted by medical law.

"Surgery is the residuum and *caput motuum* of physic; what other skill cannot cure is left for the knife. Hence the amount of surgical operations is determined by the medical art; where this is high, operations are few, where it is bungling and injurious operative surgery is multiplied. Now as we know that old physic by no means represents what can be done by therapeutical means, it follows that operations are in the main not justifiable, until the patients have had the better chance afforded by homœopathic treatment. Hence the public necessity, in the interest of the poor, of superadding 'by Congress' a coëqual Homœopathic staff to each and all of our great hospitals" and brigades of the army.

It is very strange that the "old profession" should totally disregard, nay, be ignorant of what have for ages been termed *vulnerary remedies*, i. e., medicaments that have a direct power of healing iujuries and wounds. And yet it is most true that *Arnica* in a weak solution as a lotion, and infinitesimal doses given internally has magic power in obviating the bad effects of bruises and wounds, and of bodily fatigue—that *Rhus-toxicodendron* has a similar power over strains, sprains, injuries of ligaments and tendons—that *Calendula*, does the like service in lacerated wounds, preventing suppuration and greatly diminishing the extent of scars—and that Symphitum is as uniting for broken bones, as the others for the lesions mentioned.

If these facts were generally known, would not the ruling medical despotism be arraigned before the bar of public judgment—and could opinion do less than to demand of Congress, that apart from all medical surperciliousness the poor soldiers of our government should have secured to them, in their hour of sickness and suffering, the benefits of all the means known, for their safe and rapid recovery? The results to the poor fellows will be a new lease of limb and life in very many cases. Patients could then compare notes: the man who had used *Arnica* and *Symphitum* for his broken leg on the same day that his brother in arms with a similar injury, had been left to nature *assisted* by leeches, liquor plumbi, and pills and draught, would furnish such a fine contrast as the homœopathic patient *restored*, danced for joy around the still bedridden allopathic brother, and "the induction would be so Baconian and immediate."

Aside from the view of humanity and personal rights, there is another and important consideration to the government—namely economy.

As we have seen no report of the medical and surgical stores supplied to our army, we shall make an extract from the catalogue of stores supplied for the British Army in the Crimea—as Old Physic uses the same means and articles in America that he does in Europe. We ask the careful consideration of this list, by every American citizen. "Blistering plaster, 500 pounds; Calomel, 134 pounds; Contrite Jalap, 150 pounds; Colocynth pills, 100 pounds; Blue pills, 100 pounds; Dovers powder, 150 pounds; Laudanum, 250 pounds; Rhubarb tincture, 250 pounds; Castor-oil, 1570 pounds; Opium Contrite, 30 pounds. This amount, let it be remembered, was only for an army of 30,000 men. As Uncle Sam has over half a million, therefore he would have to supply seventeen times as much—that is of Blistering-plaster, 8,500 pounds; Calomel, 2,278 pounds; Jalap, 2,550 pounds; Colocynth, 1,700 pounds; Blue pills, 1,700 pounds; Dovers powder, 2,550 pounds; Laudanum, 4,250 pounds; Opium, 510 pounds; Rhubarb tincture, 4,250 pounds; Castor-oil, 26,690 pounds. We have taken a few items only from the catalogue published in the *London Post.* The same list of medicines, I have no doubt, you would find in the supplies furnished to our army, and perhaps on a more magnificent scale. Can this fearful array of drugs be viewed with aught but disgust? And the expense! But great as the cost is, that is an insignificant item, when weighed against the fearful amount of *suffering and death* caused by these drugs, given in the ordinary, regular, secundem artem dose. Cannot our Congress be made to see and feel its responsibilities? In all great improvements, affecting our country, in a civil or military point of view, our Congress is prompt in adopting them, and encouraging investigation and progress.

Why then, in the name of humanity, do our members of Congress shut their eyes, and close their ears in the presence of the most wonderful of all improvements in this age of progress? Is it not because they do not have the facts fairly set before them, and are not aware that homœopathy would save limbs, lives and dollars by the thousand, which are now lost under the reign of old physic? Why can we not have a National Convention to devise some plan by which the rights of soldiers, science, finance, and homœopathy may be fully presented to Congress? And the press, the great bulwark of liberty.—Why can we not have it from east to west—from north to south, speaking in behalf of the soldiers' rights, and the tyranny of medical rule? Surely the cause of humanity demands the effort! The *union of one hundred good and true homœopaths* can put to flight the combined hosts of the Philistines, by the sight of truth and the artillery of facts—and our army be delivered from the cruel and barbarous treatment of allopathic ignorance and bigotry. Shall it be done?

ARTICLE XII.—*Some Remarks on the Medical Treatment of Diphtheria.* By WALTER WILLIAMSON, M.D., of Philadelphia, Pa.

So much has already been written on the subject of diphtheria, and now, since the disease has been so generally distributed over the country, that nearly all physicians have had an opportunity of seeing it for themselves, it is quite unnecessary for practical purposes, either to transcribe what has been so well written, or to further enter into the details of an affection which has presented itself with such dreadful attractiveness to the observation of almost every practitioner in the land. I propose therefore to make a few very general observations on the *medical* treatment of the disease.

Being thoroughly convinced of the fact, that drugs possess a curative power over diseases, just in proportion to the extent and the exactness in similarity of their morbific agency, I discard the expectation of a specific being ever discovered for diphtheria, or any other disease which does not possess the natural qualification just mentioned; and hence I look with little interest on many of the vaunted unfailing remedies of fanciful powers, which have been proffered for the treatment of this very grave disease.

I am aware that we must not accept the present state of our knowledge of the symptoms of a drug as the end of all that is attainable on the subject; and, on the other hand, we should not always refrain from the use of a drug because all of its known clinical symptoms have not been confirmed by legitimate provings. The latter observation applies to several of the remedies which are known to exercise great influence in the treatment of diphtheria. After considerable experience with **Croton-tiglium**, I believe it to be one of the most active agents that can be used against the formation of the peculiar deposit in the throat in diphtheria. **Cantharides** is also a very important remedy in the treatment of the throat affection, and in some instances where the patches have been small, I have known this remedy to remove them very speedily. **Rhus** is an important remedy in all stages of diphtheria, and the practitioner will seldom be disappointed in its action, when the symptoms indicate its use.

It is not intended by what has been just said, to discourage the administration of Acon., Bell., Caps., Iod., Merc., Nit.-ac., and other remedies when they are indicated, for it is well known, that the demands of the symptoms must be met by the appropriate homœopathic remedy.

The result of the adoption in my practice of Croton, Canth., and Rhus as the principal remedies in the treatment of the throat symptoms in diphtheria, has been to diminish the mortality one-half. A careful study of the pathogenesis of these drugs; and a full consideration of their well-known sphere of action in the treatment of other diseases, would lead one to anticipate important results in the treatment of diphtheria, and after repeated trials I have found the anticipation to be fully justified.

I have generally administered the remedies in water, in the portion of ten drops of the first decimal dilution to a common tumbler half full of water, and then given a teaspoonful every hour, two hours, or three hours, according to the urgency of the symptoms.

Perhaps I might as well state here, that, since I have relied more on Rhus and less on Bell. in the treatment of scarlet fever in my practice, the mortality has also diminished.

ARTICLE XIII.—*Phthisis Pulmonalis.* By F. W. HUNT, M.D., of New-York.

[Continued from Vol. XI., p. 58—75.]

Chemical Character of Tubercle.—"The formula of tubercle according to Simon is, $C_{43}\ H_{35}\ N_6\ O_{14}$, Caseine: Prot. 10 $S._1$.*" The organic component parts of tubercle as given by Vogel, Cerutti and others are: caseine, with some fat and a little albumen. Others have found albumen, gelatine, and fibrine, cholesterine, &c., showing that the composition is not always precisely the same. It is supposed by Fletcher and others to be "an organized mass." "Tubercle," according to Simon, Anel and Rokitansky, consists in a mis-development of the protein ingredients of the lymph and blood, the essence of which lies in the solidification of something which should remain fluid: this is due to the proteine ingredient precipitated in combination with oxygen. Hence most likely to take place in the glands where lymph is brought into combination with the blood, and in the lungs where it meets with the oxygen of the air, it may arrive any where when chemical reaction occurs with a nutritive blastema. In accordance with this, all the great leaders of modern pathology agree on the formula that 'venosity of the blood excludes tubercle.'* It also explains the beneficial effects of dietetic measures, cod-liver oil, spirituous liquids, and the "carbonaceous atmosphere of swamps in arresting or retarding tubercular development.

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* Dr. Gelston. Brit. Jour. of Homœopathy, Oct. 1, 1860, pp. 598, 599.

Turberculous blood is "defective in vital qualities: the red globules are deficient in number and defective in structure: the globulin, hæmatin, and iron are all deficient. The serum of the blood is vitiated in quality: the water, albumen and lime in excess." The albumen may be defective in a tendency to be converted into casein, which does not exist in the blood in its native state. The fibrine is deficient in quantity and imperfect in quality; also the fats, alkaline and earthy salts, especially the chlorides and phosphites of potassa and soda. The quantity of albumen in proportion to other ingredients in the blood has been remarked to be more nearly uniform than that of any other principle, being about seventy or eighty parts in one thousand. "It would seem," says Gairdner, "as if nature had found it necessary to have at hand something like an unvarying stock of the raw material out of which all the other principles of the blood might be fashioned, according to the varying states and requirements of the organism. One particularly interesting point in connection with this view is found in the fact that, relatively, the albumen and the blood globules appear to alternate with one another in their several proportions—if the globules fall off in amount, the albumen is increased; and *vice versa*, when the globules abound, the albumen is diminished."

Causes.—1. *Remote*, or those which excite and induce the constitutional predisposition. The principal causes which induce consumption are: hereditary transmission from parents who have themselves inherited the disease, or who originated it in their offspring by becoming enfeebled; improper diet, both as regards quantity and quality; deficiency of pure air, exercise, clothing and cleanliness; excessive labor; mental depression, anxiety and care, which exhaust the nervous force; too early marriage or excessive sexual indulgence which lays the foundation of premature decay in parents, and scrofula in children. Fonteret* says, "if the exhaustion consequent on debauchery is not always a cause of sudden death, it is infallibly attended with the loss of strength necessary to labor, and develops a peculiar aptitude to certain diseases. How many affections of the spinal cord, how many forms of paralysis, of disease of the chest, cancers of the cervix uteri, &c., arise from vicious indulgence." The children born under "concubinage are few in number," are "puny, scrofulous, and are liable to a mortality greater by one-half than legitimate children."† A large proportion of the cases of consumption seen among young men arises from the vice of masturbation. A higher and purer physical and spiritual education than boys or young men now anywhere receive is one of the most imperious demands of this progressive age.

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* North American Jour. of Hom., May, 1857.

2. *Exciting Causes.*—Those which determine the local deposition of tuberculous matter after constitutional predisposition is established are: confinement in early life to close, crowded, ill-ventilated residences, factories, work shops, or school rooms; deficient or improper diet; irregularities of various kinds: over-taxing the mental and physical powers of children in schools. Experiments on rabbits prove that insufficient nourishment, damp air and the exclusion of light favor the development of tubercular deposits.

Certain kinds of food favor the development of scrofula; of these pork is the worst that is in general use.

Leavened bread, whether made light by yeast or any other process which requires the dough to stand and sour before baking, aids in developing scrofula, dyspepsia and a long train of nervous diseases. When phthisis already exists these poisons increase the obstacles to recovery.

CAUSES.—*Contagion*, Dr. R. Rogerson says:‡ "Phthisis is certainly not infectious through the atmosphere as small-pox or scarlet fever, but when the strong and vigorous come in contact with the phthisical breath, it must have some effect in giving rise to the disease. Sleeping in the same bed, breathing the same polluted atmosphere in the same bed-closet, and inhaling the very breath which the diseased lung is giving off, in fact the effluvia from the diseased lung coming in actual contact during inspiration with the healthy lung: and such a state of matters existing for weeks and months, must undoubtedly prove injurious and detrimental, and may be expected to leave some traces behind. The tubercular emanations coming in contact with the blood through the medium of the lungs, alter the chemical composition of the blood, and thus predispose to tubercular disease." The individual who has in this way been *predisposed to* consumption is more liable to have the pulmonary organs affected from other ordinary causes of disease. If these causes, whether consisting of malaria, putrid exhalations or contagion, operate with dynamic power when received through the lungs it is not possible the putrid gases evolved from the lungs of the consumptive can be innocent. In the case of other infections the conditions of attack or immunity from the effects of the invisible poison consist in the quantity breathed, and in the degree of physical resisting power. Whatever vitiates the blood, obstructs the functions of the lungs, or debilitates the system predisposes to tubercular disease.

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* Hygiene physique et morale, &c. of Workmen in Large Towns, &c. By A. L. Fonteret.

† Consumption, its Nature, Prevention, and Homœopathic Treatment. By Wm. Hitchman, M D., F. L. S. Phila, 1858.

‡ British Journal of Homœopathy. Oct., 1860, p. 689.

Prognosis.—Consumption has been generally regarded as an incurable disease. Cases of cure have been published; but the favorable termination has in nearly all of them been ascribed to the restorative powers of nature, acting under circumstances in which unfavorable influences were accidentally withdrawn. Dr. Hughes Bennett gives one of these cases in the *Edinburgh Monthly Medical Journal*, March, 1850. This author refers to various others who have published cases, in which "all the functional symptoms and physical signs of the disease, even in its most advanced stage, were present, and yet the individual has survived many years, and ultimately died of some other disorder; and, on dissection, cicatrices and concretions were found in the lungs."—"Practice of Medicine," p. 717.

How far this happy result of treatment, or of nature's unaided powers, has ever been brought about by remedies, and how far the common fatal termination of phthisis is really caused by active treatment, may remain for the present undecided. Allopathic authors agree, that the practice that prevailed "half a century ago, and even that which is not yet entirely abandoned by some of their number, never succeeded in curing any, and must have shortened the lives of the annual thousands who have died in their hands. Homœopathy promises at least to do no injury; some of its practitioners claim to do much better. Dr. Epps, in his work on "Consumption, its Nature and Treatment," p. 111, says: "The alleged incurability of phthisis is the declaration of an error. It is the creation of an impossibility out of a difficulty." He regards the disease as certainly curable, because the Hahnemannian *law of cure* is inflexible in its results, when its application is understood. But we fear all his cases will hardly be recognized as cases of true phthisis; and men of every school willingly admit, that many alarming cases have been known to recover without any treatment whatever. Dr. Flint reported 24 cases of "arrest" of consumption, of whom 13 recovered fully. The result in all was attributed to: Avoidance of depletion, mercurials, emetics, low diet, and confinement and other changes in the habits of life.

Hæmorrhage from the lungs so often occurs in phthisical patients, that phthisis is generally represented as the consequence of the hæmorrhage; but this is not always true. M. Louis says, "no proposition is at the present day more satisfactorily proved, in the opinion of all accurate observers, than the extreme rarity of hæmoptysis of any amount, unless as a dependence upon tubercles. It is impossible then, in the existing state of things, to regard hæmoptysis as a cause of tubercles.* Dr. Evans, of Dublin, says his observations show, that when the profuse hæmoptysis which are sometimes observed in young people may give rise to the phthisical predisposition, and thus operate as the cause of tubercle.† The rarity of hæmorrhage at an advanced stage of phthisis was shown by Laennec to depend upon obliteration of the vessels in the neighborhood of cavities. It has been established by the inquiries of Van der Kolk and Giullot, that the branches of the pulmonary artery stop short at a certain distance of one, two, or three lines from tubercles of gray granulations; and the more these adventitious productions increase in size, the further do the divisions of the artery stop from their perimeter. To such a degree is this true, that when tubercles are of large size, or have given place to cavities, they may be surrounded by a sort of involucrum, ten lines broad, into which no ramification of the artery makes its way.

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* "Researches on Phthisis," p. 506.

† "Lectures on Phthisis," p. 193.

HYGIENIC MEASURES.—The most important are: Laborious exercise in the open air, conjoined with agreeable mental occupation. It is generally advisable to avoid long-continued confinement to any one business. It is well known, that consumptives almost uniformly entertain sanguine expectations of recovery, but they expect to be cured without their making any efforts themselves. The disease creates hopes that are never to be realized, at the same time that it takes away the strength, the energy, and perseverance necessary for accomplishing even all that might be done by faithful and persistent efforts. "A passive expectation of recovery and calm aquiescence in the prospect of a fatal termination" are characteristic of curable cases. And among these it seems that recovery was the result of exertions involving unusual energy, or innate force of character, or of physical and mental efforts made under circumstances peculiarly calculated to call them out. Exercise is only useful in the open air, which promotes digestion—more perfect secretion; and the disease is much more prevalent among persons who follow sedentary and in-door occupations, than among those employed in the open air.

Systematic employment of physical movements is now accepted as an efficient means of averting consumption. The contraction of the chest in phthisical patients is in part owing to hereditary conformation; but it is generally increased by indolent and sedentary habits. However it may have originated, much can be done towards correcting it, and in correcting a defective conformation many other accompaniments of an imperfect respiration will be removed. A systematic course of exercises, which shall especially bring into play the muscles of the chest and keep the body erect, will greatly enlarge the capacity of the chest; the lungs may be made to receive a much larger quantity of air: but it is necessary that this course of health-giving exercises shall be commenced before hopeless structural disease already exists, and that it be so directed as not to give "fatigue and exhaustion in the nervous system out of all proportion to the effect upon the muscles." The general indication, says Dr. C. F. Taylor,* "will be met by employing the muscles in such a manner that, while *they* are made to act with more or less force, no greater demands shall be made upon the nervous system than can be easily and healthfully responded to. The first thing to be attended to, and never to be lost sight of for a moment, is the circulation of the blood. Feebleness of the heart's action, imperfect respiration, poor quality and small quantity of the blood, and especially want of affinity between the blood and the tissues, all conspire to produce the livid countenance, cold extremities, and consequent pectoral congestion and oppression so characteristic of pulmonary consumption." The specific movements by which these conditions may at least be greatly improved we will not here describe in detail. It is advised to "act almost wholly and very perseveringly on the extremities, by rotations of the feet, hands, arms, and legs, and by flexions and extensions of the same;" *but* "*there should never be any attempts to expand the chest*, till after the peripheric circulation has been improved." After a proper distribution of the fluids has been secured and maintained, improved health is sure to follow.

Dress.—The dress of the invalid should be warm and lightly fitting, so that the chest may be in no way hindered from having free motion. Flannel worn next the skin has the double advantage of being a bad conductor of heat, and by its rough friction-producing surface of developing the action of the skin. Cleanliness of the whole body is equally needed, both for the removal of disease and the maintenance of health.

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* "Theory and Practice of the Movement Cure," p. 212.

The power of re-action in the tubercular diathesis is generally feeble; and therefore, though sponging of the chest with cold water may be useful before any pulmonary lesion has actually taken place, there is great danger of producing congestion of the lungs and hæmoptysis, followed by rapid development of the tubercular disease, by the inconsiderate application of *cold water* to the surface. The use of *tepid* water is in general safe, and when followed by friction with the flesh brush or coarse towel, it exerts a good influence in strengthening the chest and promoting the healthy action of the skin.

Climate.—"The advantage of a mild and sunny climate is, that daily exercise in the open air can be taken; and so not only can the natural spirits, but the functions of digestion, respiration, and the skin be kept up to the comparatively natural and healthy standard." But there are other considerations, which in late years have led many to doubt the real superiority of a warm over a cold and dry climate; and there is scarcely any northern country that has not by somebody been recommended as furnishing a favorable residence for consumptives. It is true, that even diseased lungs will bear a cold, dry climate much better than one in which the conditions of cold and damp are combined: and in some cases in which disease is really, though slowly progressing, a cool, dry and bracing air is much more salutary than a warm, humid and relaxing one. Still the preponderance of authority is in favor of sending the patient in whom phthisis has been detected in the incubative stage, for the winter months to a climate where he may enjoy "mild, dry and somewhat tonic air," particularly if he is of a lymphatic temperament. Dr. MacLimont who spent a sufficient length of time at various places noted for possessing peculiar advantages, mentions Mentone, Nice, Cannes, and Hyères; but, upon comparing his descriptions of the merits of these places, we can see no special merit in any of them. Nice seems to be preferred for patients "with whom a sea air agrees." "In more advanced cases of disease, as well as those in which a considerable amount of acute inflammatory action exists, being characterized by dry cough, accelerated pulse, and much feverishness, more benefit will be derived from a softer and more sedative air than that possessed by either of the places above named. And Madeira, Egypt, Malaga, Rome, and Pau, offer these advantages.

Madeira possesses "an atmosphere free from extremes and sudden alternations, of great barometrical and themometrical uniformity, a winter temperature averaging 64°, and totally exempt from cold winds; "but, on the other hand, Madeira is undoubtedly *relaxing*, predisposing to various affections of the stomach and bowels, and altogether unsuited for children and healthy adults." (*British Journal of Homœopathy*, July, 1861, p. 441.)

Egypt possesses, "like Madeira, a high winter and spring temperature, great uniformity, and absolute freedom from high and cold winds, yet though quite as mild and balmy, it is neither damp nor relaxing." In Upper Egypt the climate is "so free from rain and moisture, so balmy yet invigorating and restorative, as not only to prove highly curative in diseases of the respiratory organs from its direct action thereon, but is well calculated to improve the general health and spirits, and to repair the waste which so constantly follows in the train of these diseases." But unfortunately it is too far off: it costs too much of health and money to reach it or to stay in it; and few invalids can avail themselves of its blessings.

Rome has a "still, serene, soft, bright atmosphere during the winter months, but it is subject to great and sudden atmospheric alternations, in the spring. It is of all the others *most relaxing*, liable to produce disturbances of the stomach and bowels, gastric and bilious affections, diarrhœa, dysentery, and malarious fever."

Pau is colder in winter than any of the above; considerable rain falls at this season: but in spring the weather is "dry, mild, sunny, and remarkably free from the disturbance of winds." The air is very soothing, and is well suited to invalids of a nervous and irritable temperament: but it disagrees "with persons subject to irritable bowels, or those of a lymphatic and strumous habit."

In England, particular localities have had their advocates. Dr. Pope recommends "the hills of Malvern or Ilkley as infinitely better adapted to the early stage of the disease" than the "warm, moist and relaxing atmosphere of the southern coast." Dr. Epps recommends the village of Warlingham situated among the Surrey Hills, about sixteen miles from London. There, he says there is no water except at the depth of three hundred feet, and the water used is rain-water: and a walk or a drive exposed to the sun on the south-west and protected on the east by a high edge "affords the means of exercise even on a cold and sunless day." (p. 218.)

Wherever the patient may reside it is agreed by men of every shade of opinion that the patient should constantly enjoy "a pure, warm, dry air, a constant and free indoor ventilation at the same time that he is supplied with a highly nutritious food. It is claimed that attention to these points alone have often led to the removal of the tubercular predisposition. It is advised to "avoid the places at which consumptives are congregated: but to seek such as afford incitements and resources for physical exertion," and to encourage travelling abroad, not as a task, but as a means of mental gratification.

Dietetic Treatment.—In undertaking to "contend with success against the most cruel enemy of the human race,"* we immediately perceive the importance of fortifying well all the outposts. As the chief pathological characteristic of consumption is seen in *mal-nutrition* or *mal-assimilation*, no mode of treatment has ever succeeded in curing it that co-operated with the disease by *starving* the patient. The phthisical invalid should be encouraged to eat, *not all he can* and *whatever he pleases*, but all he can *digest* and *assimilate*. In choosing the articles to be allowed and the quantity of each, the skill of the physician will be as severely tested as it will in selecting specific remedies. The powers of the patient should never be lowered by a restricted diet, but a selection should be made from such simple and plain articles as are found in the patient's daily experience to be highly nutritious, and, at the same time easily digested, producing the least possible gastric or abdominal irritation. It is not only necessary that all the material constituents of the body shall be taken in the food in sufficient quantities, but that the digestive and assimilative powers shall be kept up to the standard of healthy action.

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* Louis on Phthisis

Each individual case requires careful study; it is desirable to allow considerable variety; to cause it to be taken at some well-considered, but nearly regular intervals; after food is taken rest should be allowed for a sufficient time to permit digestion to proceed without disturbance; and exercise should be afterwards enjoined as far as the patient's strength will allow. Active exercise increases strength as much by promoting digestion as by compelling the lungs to perform full breathing.

The ends to be attained are:

1. The removal of the cachexia on which the progress of the disease depends.
2. The consequent arrest of the disease: and
3. Promotion of the process of restoration.

As all of these ends are attainable by general measures which develop and strengthen the physical powers of the system, we will consider them separately.

SELECTION OF FOOD.—Animal food is indispensible to the consumptive, whatever may be the theories or experience of persons in better health. The patient must endeavor to suit his taste and digestive powers by testing the properties in succession of a few such articles as the following: milk, eggs, pure cream, beef-steak, fresh fish, &c., at the same time, taking a due proportion each meal of the best bread, sago, rice, cocoa, sugar, with small quantities of tea, or coffee, or beer, but taking a full supply of fluid in free drinks of pure water. Of a few important articles it is necessary to speak separately.

Pork.—It has been believed from the earliest ages that swine's flesh was injurious to human health. Among the Hebrews it was considered as a cause of scrofula and hence was prohibited by the law of Moses: and to this prohibition is still attributed the exemption of the Jews and Mahomedans from scrofula and consumption. In America the merits of pork have been tested on the largest scale, and the preponderance of authority is evidently against it. The filthy habits of the hog; the fact that he has always been known to be subject to tubercular disease; the significance of the name *scro-*

fula or "swine disease," translated from the Greek name of the same signification; extensive observation in a country in which more hogs are produced and eaten than in any other country, all conspire to convince me that pork should be avoided by all persons, especially by invalids and such as have consumptive or scrofulous tendencies.

Milk, the first article furnished by nature for the use of the higher order of animals, and "the only material throughout the range of organized being so prepared"* is a complex mixture of saccharine, oily, and albuminous principles. It is too complex a mixture to suit the views of a theorist; but it is "a kind of prototype of what an·alimentary substance should be, "and its character was established before theories were invented.†" When digestion is reasonably good it is as nutritious as any other article. In dyspeptic cases the coagulum formed of it in the stomach by the gastric juice is too heavy and solid. Sweet cream is better, but should be taken in small quantity. In large cities nearly all milk is rather doubtful: that from cows kept in stables should never be allowed. Milk originally pure, condensed by "dessication," is the best I have found in New-York city.

The relative degree of digestibility of a few common articles is thus given as ascertained by experiment: Rice well boiled, requires for digestion 1 hour. Sago, 1 h. 45 minutes. Tapioca, 2 hrs. Milk, boiled, 2 hrs. Venison steak, 1 h. 35 m. Turkey, (wild) 2 hrs. 18 m. Lamb, fresh, 2 hrs. 30 m. Eggs, raw, 2 hrs. Eggs, whipped, 1 h. 30 m. Trout, fresh, 1 h. 30 m. Oysters, fresh, raw, 2 hrs. 55 m. Fresh beef, raw, roasted, 3 hrs. Pork, fat and lean, roasted, 5 hrs. 15 m. Pork stewed, 3 hrs. Mutton, fresh, roasted, 3 hrs. 15 m. Bread, wheat, fresh baked, 3 hrs. 30 m. Potatoes, boiled, 3 hrs. 30 m. Soup, beef, 4 hrs. Chicken soup, 3 hrs. Oyster soup, 3 hrs. 30 m. Barley soup, 1 h. 30 m.

Bread.—All invalids, but especially consumptives and dyspeptics, should rely much on bread; and they ought never to eat any that is not free from all poisonous or impure elements. I have often spoken against the use of bread made light by yeast and leaven, still so much in use. Pure bread is the desideratum; and it must be free from the poisonous fungi of which yeast and leaven consist. There are now several resources which enable us to avoid these old-fashioned poisons. 1. The "*aërated or unfermented bread,*" Fourth-street and Lafayette Place, New-York, which I have found satisfactory in many cases. 2. The "*acid phosphate of soda,*" as prepared by Prof. Horford, of Harvard College, sold by J. Dwight and Co., No. 11 Old Slip, N. Y. 3. There is also a "prepared flour" which is said to contain the same ingredients as the last. 4. The bread made light by the effervescence of Muriatic-acid and Bi-carb. of soda, described in the article already referred to.* By restricting the patient to bread made according to some of these modes with *unleavened* crackers, sea-biscuit, &c., we should be able to bring him up to a better grade of health and strength than he would ever reach under the old prison diet of "*stale bread.*"

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* Prout. † Graves' Lectures. Dublin.

Fish contains most of the essential elements of a nutritious diet, as fibrine, gelatine, and albumen, with much phosphorus and hydrogen. They therefore possess some stimulating powers which render them "rather irritating than plethoric and substantial."† Fresh fish are better suited for the phthisical than for the dyspeptic.

Sugar.—The carbonaceous elementary principles have been shown to be beneficial in supporting the failing strength and flesh of consumptives: the operatives of the sugar-houses are said to enjoy a comparative immunity from phthisical disease. The *Syrups* so much in popular use owe much of the little good they do to the sugar they contain.

Whatever selection we may make for the proper physical support of the failing or threatened invalid, it is an imperative duty to support and develop his powers by nourishing food which *will agree with him*, whether it would suit another or not. No phthisical patient's life was ever prolonged by vain efforts to starve out the fever that seems to be consuming him.

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* See North American Jour. of Hom., Feb, 1859. Also, U. States Journal of Homœop., Vol. I. p. 293.

† Brillat Savarin.

Medical Treatment. 1. For the conditions of the Throat, described, page 69, August, 1862.

Temporary and Local Measures.—A mixture of equal parts of Chloriform and Olive-oil has been applied to the diseased surface by means of a large brush, as far up the pharynx as beyond the velum, and as far down as possible. A solution of suet in milk (three ounces to six) and applied often by table-spoonfuls, quietly and slowly swallowed is very useful.* In some instances the greatest temporary relief is afforded by a strong solution of nitrate of silver. Morphia in minute doses is a common palliative in the later stages. We, however, never rely upon local treatment. Apply with a brush a mixture of oil and liquor potassa. Also Cod-liver-oil, with the same alkali, in small quantity, is directed to be swallowed slowly.

The secretions of the mouth are very acid and the alkali acts not only homœopathically, but chemically. It is therefore, advised to avoid speaking or the swallowing of the secretion from the inflamed surface. Suet and milk are regarded as useful, both dietetically and medicinally.

The Homœopathic remedies are: Acon., Zinc, Nux., Arsen., Conium, Phos.†

For the application of any local remedies the mouth must be well opened; the tongue is to be held down and drawn a little forward by a broad spatula, the patient breathing at the ordinary rate and through the mouth. Then take a camel's hair brush as large as the end of the little finger, and carry it dripping with the mixture into the fauces, apply it as high and as low down as possible. Success depends on the use of a large quantity, over an extensive surface.

General Treatment.—The great danger is that of over-medication. The invalid who to-day is acknowledged to be in the incipient stage of consumption is already suffering from the effects of many agents taken as remedies, and each after a *fair trial* has been condemned. When the true remedy is selected it is quite common to defeat its good effect by frequent repetition, by alternating with other remedies, or to change speedily for something else. We are much more likely to succeed by carefully selecting the most appropriate remedy and give only a single dose. In some cases we should wait for perhaps a few days, in many cases even several weeks, before repeating. But few patients or physicians have patience for such long delays. We may hope, in curable cases to succeed with some of the following remedies: *Jecorus-aselli, Sulphur, Hepar-sulph., Calcarea-carbonica, Mercurius, Stannum, Ferrum, Silicea, Sepia, Phosphorus, Phosph.-acid, Lobelia, Sanguinaria, Acid.-nitricum, Drosera, Lycopodium, Hypophosphate of Lime, Lachesis, Iodine, Iod.-potassæ, Arnica, Sambucus, Belladonna, Hamamelis, China, Alcohol.*

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* Dr. Edward Smith, Braithwaite's Retrospect, July, 1858, p. 69.

† Dr. MacLimont.

PRELIMINARY OR FIRST STAGE. *Asellum-Jecoris or Cod-Liver-Oil.*—It has been believed in all ages that oleaginous substances have some beneficial influence in the treatment of consumption, whether their action was to be attributed to their medicinal or to their nutritious properties. This oil at least supplies nutriment in a concentrated form, and it also holds in solution a fine attenuation of *Iodine.* Cod-liver-oil is usually easily digested, when the stomach will not digest it Pulsatilla or Creasote may correct the weakness of this organ. When Cod-liver-oil acts beneficially we accept its aid, but we do not accept the reasonings of those who have tried to explain its mode of operation. Dr. Madden (*British Journal of Homœopathy*, Vol. VI., p. 433) shows that the effects of the oil are quite similar to those obtained by the powers of Iodine. Dr. Pope, in a later number of the same Journal considers that this oil "presents us with food, in the shape of oil, of a highly nutritious easily assimilable character, and at the same time with a medicine homœopathic to the tubercular diathesis." It is at present regarded as one of the most efficient remedies known; but it is admitted on all hands that it can only cure in earlier stages, and that it needs to be long persisted in. Dr. Turnbull continued its use for several years.

Symptoms.—"The patient is thin, loses flesh rapidly; the complexion is pale, the cheeks frequently surmounted by a pink flush; the lips ex-sanguine; the appetite very deficient; the power of digestion feeble; the bowels easily deranged;

a sense of languor or weariness is felt after slight exertion; respiration short and hurried; when tubercular deposit takes place in the lung, the cough speedily becomes troublesome and the physical signs of disease rapidly defined." The history of the case shows hereditary predisposition to tubercle. Iodine alone is homœopathic to these cases, both before and after tubercles are formed. The quantity varies according to the digestive powers of the patient; but a dessert spoonful of the pure, clear, pale-colored variety will accomplish all that can be obtained from it.*

Cod-liver-oil is still given in the third stage in some cases with success; it is believed to be less suited to those presenting the following characteristics: emaciation not strongly marked; complexion pale and heavy looking; cheeks puffy; muscular tissue flaccid; the areolar tissue distended with serum; appetite capricious, rather than deficient; nutrition perverted rather than positively checked; bowels inclined to constipation rather than to diarrhœa, but often extremely irregular; cough slight but decided; difficulty of breathing often well marked, especially on going up-stairs or walking rather more rapidly than usual; there is also in general palpitation. These cases show a hereditary predisposition, and evidences of phthisis are visible in childhood; development of the frame seems prevented by some depressing constitutional influence; the complexion is pasty, the muscles soft and flabby; the bones are inclined to curve; the circulation is languid; strength is feeble and all the usual physical energy of early life is absent. Here likewise *Calcarea-carbonica* is suited for the symptoms detailed under the last named remedy.

In similar cases which have advanced to the second stage, Lycopodium or Nitric-acid will generally be found more useful than Calcarea.

Sulphur.—This is perhaps the most perfect specific for phthisis in its unmixed psoric form, not only when it follows pneumonia, but also when the disease is hereditary, and in the period of purulent expectoration.

In cases of *incipient phthisis* it should only be given at long intervals. A single dose should be allowed to operate for several weeks undisturbed. Dr. Nunez, of Madrid, says he has cured some cases of confirmed phthisis by this remedy. Teste says "if it has not cured phthisis it has at least retarded it for several years.*

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* Pope, p. 35.

Hahnemann† regarded phthisis pulmonalis as a *psoric* disease, and Sulphur as the first of *antipsoric* remedies. He refers to six cases in which consumption was caused by the repulsion of psora from the skin; later writers have admitted that Sulphur is a specific for itch and also for the diseases caused by its recession.

Sulphur is especially suited for phthisis in psoric constitutions, of lymphatic temperament, subject to venous plethora and hæmorrhoids. There is predisposition to take cold from slight exposure, running into chronic catarrh; eruptions resembling those of scrofula appear on the skin; rheumatic pains without swelling; drawing pains in the limbs; unsteady gait and tremor of the hands; great general prostration; nervous exhaustion following debilitating losses; numbness of different parts, paralysis and emaciation; pains worse at night, relieved by external warmth; drowsiness, and disturbed sleep; disturbing dreams, hallucinations, timidity.

The patient curable by Sulphur has generally some eruptive disease of the skin or has had such affection (not necessarily the itch) repelled from the surface at some former time; he is subject to abscesses, boils, or swelling of the glands; hectic fever followed by night-sweats, or profuse sweat from slight heat or exercise. There is hypochondriac sadness; disposition to weep; *irritated taciturn* disposition; the head is dizzy; intolerance of light. The face is pale, wan, blanched, bloated, with wrinkled countenance, blue margins around the eyes, hepatic spots in the skin; swelling of the gums; dryness of the tongue, favus on the skin. The throat is dry; mucous expectoration; sore throat, vesicles on the surface; pressure in the throat as if from a lump; tonsils red, swelled; uvula elongated. Putrid taste in the morning, ravenous appetite or loss of appetite; acidity of stomach and sour eructations; heart-burn; morning nausea; water-brash; acid, vomiting. The stomach is painful on pressure; swelling, burning and cramp-like contraction or spasm of the stomach; malaise before a meal; nausea after eating. In the abdomen there is pain, with sensitiveness of the surface; spasmodic contractive colic; cutting pain and nausea followed by diarrhœa and tenesmus; hæmorrhoids; constipation with pain and pressure on the rectum as if it would protrude; mucous stools streaked with blood, passed with ascarides or lumbrici; strangury; fœtid urine. The throat feels *rough*, the larynx dry, sore, its sides swollen and feeling as if something lodged there. Hoarseness or loss of voice. Catarrh, fluent coryza, rawness or spasmodic constriction of the chest. Cough dry, short and hacking, and after a meal exciting retching or vomiting. At a later stage the cough is looser, raising thick mucus, then greenish masses. The cough excites violent headache which in the occiput is pulsative. Spitting of blood. The breathing is spasmodically arrested; asthma excited by a long or rapid walk, or ascending the stairs; suffocative paroxysms, especially coming on at night; talking causes weak feeling of the chest; oppression or contractive pain there. Neuralgic stitches of the chest, extending to the sternum or back. Palpitation of the heart; anxious throbbing with flush of the face, or rush of blood to the head; leucorrhœa; irregular menstruation; cold hands and feet. It may not be proved that Sulphur has cured confirmed phthisis in advanced stages; but, says Teste, "there is no doubt, however, that serious affections of the air passages have frequently been arrested by its use, affections, which, without being tuberculous phthisis, would nevertheless have been equally fatal."*

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* **Materia Medica, p. 108.**

† **Chronic Diseases, Vol. II. p. 325.**

Hepar-sulphuris.—Dr. Busch, of Strasburgh, in 1800 reported cures of phthisis effected by Hepar and Aconite, others have used it with success in incipient cases. The patient has an unhealthy skin which cracks or chaps, and runs into suppuration or ulceration from slight injuries; is subject to pimples and blotches; he sweats from the slightest exercise, and also profusely at night. He is mentally irritable, impatient; has vertigo with pain in the head; falling off of the hair; erysipelatous eruptions of the face. In the throat there is a feeling of something sticking, or rough scraping or stinging stitches; rawness of the fauces, swelled tonsils; expectoration mixed with blood. Putrid taste in the mouth, loathing of food; eructations without smell or taste, vomiting, water-brash. Cough with rawness and scraping of the throat, and oppression of the chest. Violent deep cough with retching; dry cough in the paroxysms, worse at night; hæmoptysis; short breath; sighing; suffocative cough and asthma, and palpitation of the heart. Teste* says: Hepar has cured cases in which there were "stitches in the eyes; photophobia; discharge of fetid pus from the ear, erysipelas of the face; dryness of the throat; scraping of the throat with difficulty of talking; canine hunger, eruptions; paroxysms of nausea with coldness and paleness; swelling and pressure or pain at the epigastrium," &c. Hahnemann says, "it cured cases in which mental symptoms were prominent; as, dissatisfaction with one's self and others; unpleasant recollections; dreamy atrabilious mood; a ferocious malignant spleen, though occurring in a person of benevolent and merry disposition."†

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* Materia Medica, p. 168.

Calcarea-carbonica.—Hahnemann attributed important antipsoric powers to this remedy. It is said to apply more than any other remedy to diseases of the reproductive system; it is especially useful in the diseases of childhood, and is the best reliance for the correction of *mal-nutrition.* It acts specifically on the mucous membrane, on the fibrous and osseous system; on the nervous, the serous, the venous, and the lymphatic systems. Persons curable by it are of lymphatic temperament, scrofulous or rickety, show plethora of the veins; easily take cold, are frail, poorly fed, but tend to grow fat. Its application in consumption is chiefly restricted to cases in which these features predominate. The patient is feeble in body and mind, though in some cases mentally precocious, and often regarded as a genius; he is subject to depression of spirits; weeping mood; restless and anxious, has no hope of recovery; is hypochondriacal; the hair falls off; the eyes are feeble, cannot bear gas-light; and he suffers from all possible derangements of digestion; the nervous system becomes excessively irritable especially in females; there is hysteria, a fault-finding mood; nervous exhaustion, especially menorrhagia. In males, spermatorrhœa, or exhausting emissions. It is proper in the stage of purulent expectoration, especially after Sulphur or Nitric-acid.

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* Materia Medica, p. 293.

† Chronic Diseases, Vol. II., 283.

Silicea.—This remedy embraces most of the symptoms that belong to the phthisical dyscrasia, consequently, it is a remedy of value for the constitutional condition in congenital or hereditary cases. The dyspeptic symptoms peculiar to consumption are also nearly the same as under Hepar. The symptoms that show themselves in the respiratory system are thus given: Roughness and sore feeling in the larynx, with dry hacking cough, causing soreness of the chest. Hoarseness with cough, suffocative night cough; excessive, continual cough, with discharge of translucent mucus or bloody mucus. Vomiting of purulent matter when coughing. Ulceration of the lungs. Discharge of clear, pure blood with deep hollow cough; the chest painful as if bruised. Shortness of breath, felt on walking or exercising. Weakness and oppression of the chest; aching pain in the sternum; congestion of blood in the chest, with chilliness of the surface. Oppressive heaviness in the region of the heart and palpitation when sitting still.

Ferrum.—Dr. Muller has recommended *Ferrum* as a remedy for phthisis, and it is now becoming popular in Germany. (Report. Dispensary, Leipsic, 1852.)

Dr. Luther, (British Journal of Homœopathy, April 1860, p. 335) says that at a village of 400 inhabitants, near Wittenberg, in Prussia "*consumption is unknown;* and other forms of scrofula are of the rarest occurrence, whilst in neighboring villages that lie higher these disorders are common." This valley is supposed to owe its protective influence against phthisis to a large number of chalybeate springs, some of which contain carbonates and others stony sulpho-aluminous chalybeates. The inhabitants attribute their freedom from phthisis and their notorious good health and longevity, to this chalybeate water, which they use for all purposes. We cannot suppose that the unlimited use of iron in any form can be safe to consumptives.—It first became popular upon the recommendation of M. Trousseau, more than thirty years ago. He has since discovered that though there was apparent improvement in his hospital cases of chlorosis and anæmia, they all afterwards died of phthisis hastened to a fatal termination by his treatment. In December, 1859, this author, finding the profession still following the wrong trail on which he started them thirty years ago, thought it necessary to publish at length his confession and recantation of the professional sins of his earlier years. For twenty years he has been diminishing his doses. He is now afraid to give Iron in any quantity in any case in which constitutional tendencies to phthisis are suspected. The profession at large cannot countermarch so easily. We hope that within the next quarter of a century they will learn to come back to the true ground of safety and efficiency. M. Trousseau has proved, what homœopathists knew before, that Iron is a remedy for consumption because it is capable of exciting it. *In our doses* it is able to cure the symptoms which *in his doses* it caused in so many cases.*

The cases in which *Ferrum* is specially valuable are those in which† "the patient is usually between twenty and thirty years of age; his family history is free from any hereditary taint or tubercle; he is of a sanguine temperament, of a florid complexion," with an active circulation, and an easily excited nervous system. The disease has been excited by neglected catarrh, causes which originated mal-nutrition with frequent inflammatory attacks upon the pulmonary organs. Epistaxis, hæmoptysis, headache, congestions in various parts are easily excited; hectic fever runs high, and the loss of strength is very rapid; there is dyspnœa, vomiting of food, or lienteria. For this form of phthisis Dr. Clotar Müller very confidently recommends the Perchloride of Ferrum in doses of one to three drops of the first to the sixth decimal dilution. See a translation of his paper, British Journal of Homœop. Vol. 18.

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* Gazette des Hospitaux, Dec. 22, 1859.

† Dr. Pope.

The form of Iron with which we have succeeded best is the *Pyro-phosphate.* In the third trituration it has always improved anæmic, dyspeptic, or chlorotic cases. The second stage of these cases is best met by Phosphorus or Bromine. The frequent attacks of congestion and inflammation which mark their course are best met by Aconite, Bryonia, and Belladonna. In the third stage Dr. Müller recommends the *Iron again.* The Prussiate of Iron in a fine trituration is also an excellent remedy.

Phosphorus.—In incipient as well as confirmed phthisis; in persons of meagre, slender form; fair complexions, and strong sexual feelings. When in the lower lobes and of an asthenic type; in children and young girls of delicate constitutions, with dry short cough, shortness of breath, great emaciation, tendency to diarrhœa, or perspiration.

Dr. Fincke gives (Amer. Homœopathic Review, March, 1861, p. 285,) the case of a woman, aged thirty-four, "dark complexion and sanguino-nervous temperament" who had "hard cough hurting her chest and head, with a pressing forward of the eyes; thick yellowish purulent expectoration, excited by burning pains in the pit of the throat, which continued during the coughing. Dullness under the right clavicle; mucous rattle in the right upper lung anteriorly, in expiration and inspiration; puerile respiration in left upper lung; pains under the sternum when sewing; great emaciation; sallow countenance; hollow sunken eyes with dark rings around; irregular chills;" Phos., $\frac{2}{3000}$. Seven days later; "patient much improved; she still coughed hard especially in cold weather. Phos., $\frac{2}{3000}$. After that all the symptoms disappeared."

In that very rapid, and generally fatal form of phthisis described as acute pulmonary tuberculosis, or tubercular pneumonia, the symptoms generally correspond to Phosphorus, Iodine or Hepar-sulphur.

Lobelia-inflata.—*Lobelia* has been used empirically on such a large scale in the United States, that its powers are well known. When proved homœopathically, it develops a train of symptoms analogous to those of Sulphur. In phthisis it corresponds to the constitutional psoric symptoms generally, to all the stomach derangements that are common in the later stages, to the catarrhal fever of the first stage, and to the intermittent hectic of the second. Besides these important features it presents the following *bronchial symptoms:* Burning in the throat; dryness of the throat; burning prickling in the throat; increased secretion of viscid saliva, nausea, and eructations; sensation of a lump in the pit of the stomach, impeding deglutition; sensation in the œsophagus, as if something were rising in it; titillation in the larynx, with frequent short, dry cough; sensation of a foreign body in the throat, impeding the breathing and swallowing; tightness of the chest, with short and laborious breathing; chronic dyspnœa; paroxysmal asthma; pains in the chest, increased by deep inspiration; deep-seated pain in the region of the heart. Its special sphere of action has been assigned to the pneumogastric nerve. It certainly affects promptly all the organs supplied by this nerve. It also operates decidedly upon the skin, producing a peculiar form of herpes, formerly called "James River tetter." It was common on that river, and cured by Lobelia.*

Sanguinaria-canadensis.—This is one of the best agents we have for the prevention, if not the cure of consumption. In allopathic doses it acts as a tonic, narcotic, stimulant, or emetic, according to the dose employed. In large doses of from eight to twenty grains it produces nausea, heat in the stomach, faintness, often vertigo, indistinct vision, and finally emesis. In smaller doses, after continuing its use five or six days, its effects on the pulse resemble those of Digitalis. I have long been familiar with its powers in many forms of pulmonary, bronchial, hepatic, and gastric disease. I have used it with success in patients who were subject to distressing affections of the chest, repeated attacks of pneumonia, hæmoptysis, and spasmodic attacks resembling pertussis; also in protracted catarrhal fever, which leaves obstinate cough and threatening consumption. The cough has generally been mitigated, diminished in frequency, the powers of the whole digestive system increased; the appetite is always improved, or regulated in cases where it has been morbidly great.

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* Transactions of American Institute of Homœopathy, Vol. I.

Symptoms.—Coryza; rawness of the throat; pain in the breast; cough; salivation; looseness of the teeth; dryness of the lips; the tongue feels sore, as if burned,—white coated; sore feeling of the epigastrium, increased by eating; burning heat in the stomach, with headache; gastritis; nausea, vomiting, with headache; periodic nausea; nausea and chill; diarrhœa; torpor and atony of the liver, with colic; throbbing, beating in the abdomen; flatulent distension of, or indurations in the abdomen; hæmorrhoids. Chronic dryness in the throat; continual severe dry cough, with pain in the chest, and circumscribed redness of the cheeks; tormenting cough, with expectoration;—the peculiar cough, emaciation, and hectic fever of pulmonary consumption. Hydrothorax, asthma, and pneumonia; pneumonia typhoides; pain in the chest, with cough and expectoration; burning and pressing in the breast and back; palpitation of the heart; burning of the palms of the hands and soles of the feet at night. In chronic forms of pneumonia the first stages of phthisis; in hepatization of the lungs and bronchitis; putrid sore throat.

I have had so much allopathic experience with this remedy in diseases presenting the above symptoms, that I do not like to acknowledge that my former successes were gained in violation of law. It has appeared to me, that the remedy is truly homœopathic to all symptoms enumerated, and a vast number more; but that it sometimes produces its curative effect by a local *primary* action, and in other cases it cures by its *secondary* action.

Drosera-rotundifolia (*Sundew*).—Vicat ("Treatise on the Poisonous Plants of Switzerland") says the Droseras are "acrid and corrosive; they cause ulceration of the skin, and injure the teeth; triturated with salt they are used as vesicatories. The Sundew is sold in shops as a useful remedy in coughs, asthma, ulceration of the lungs, &c.; still it is certainly poisonous for sheep: it affects their liver and lungs, and causes a cough that makes them waste away slowly." Hahnemann refers to Borrhichius to prove, that "it causes a very violent cough among sheep." Several medical men of former times employed it in coughs, and in phthisis with purulent expectoration." The plant was first described and figured by Dodoens, of Belgium, in the sixteenth century, under the name of *rorella prima major.* Linnæus directed the acrid juice for application to warts and corns. Haller says it causes excoriations and ulcers of the skin. A German botanist, named Siegesbeck, in 1716, says the plant is injurious to sheep, particularly by exciting a cough which is often fatal. He and also Heerman (Erfurt, 1715) found it to allay asthma, remove hoarseness, and restore the lost strength. The tincture was found useful in catarrhal fevers (influenza), and epidemic whooping cough (as that of 1712).

Auscultatory Signs.—Cases in which it was successful: dullness more or less extensive, weakness of the respiratory murmur, roughness of inspiration or expiration, respiration in several impulses, prolonged expiration, *souffle* behind the scapula.

Functional Signs.—Cough generally dry, oppression, spitting of blood, thoracic pains, night sweats, emaciation. Under the influence of Drosera, when the general state of the patient was good, Dr. Curie says, he has seen all these symptoms disappear. The cases in which it promises little are those in which the fever is of a continued character; where the food is not duly assimilated, as is often the case with phthisical patients who have large cavities, and some others, where the stethoscopic signs were not strongly marked;—even in these it gave relief for the first week, and when it failed the patient died more quietly.

Dr. Eugene Curie read before the Academy of Sciences of France, September 2d, 1861, the results of his experiments on the physiological and pathological properties of the Droseras.* He says, he chose the domestic cat as an animal to experiment upon, from the opinion that tubercles had never been found in them. He gave one cat 15 centigrammes per day of Drosera, triturated with sugar of milk, and killed him with it at the end of six weeks. He gave to another at first a drop at a dose, which was afterwards increased till it amounted to 1600 drops per day of the spirituous tincture evaporated in the air, and latterly in vacuo. This animal was killed at the end of one year. A third has been using the drug for six months, and shows the same symptoms as the two former.

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* Bulletin de la Societé Medicale Homœopathique de Paris. Nov. 1861. British Journal of Homœopathy, Jan. 1862.

Symptoms produced.—All three had diarrhœa at the commencement, and a marked weakness of voice was noticed after six weeks. They could utter sounds, but they could not be heard, though at the commencement their cries gave great annoyance to the neighbors.

Appearances on Dissection.—In the two animals dissected, the first, on being opened, showed beneath the pleura some almost gelatinous deposits, surrounded by an anomalous redness. The changes in the lungs were not such as revealed tubercle to the eye, but they were plainly revealed by the microscope; and the observations of Dr. Curie were confirmed by those of Dr. Gratiolet, head of the Museum Department, who satisfied himself that these deposits were of a tubercular nature. There was also in this animal considerable enlargement of the mesenteric glands. The second cat, killed after one year of experimental treatment, showed lesions consisting of small white granules, the size of a pin's head, situated beneath the pleura, and surrounded by a very red injection of the neighboring tissue to the extent of several millimetres; an injection that penetrated into the pulmonary tissue, but was unaccompanied by induration. These granules were only found under the pulmonary pleura, none were noticed in the parenchyma of the lungs. These gray granulations were moderately hard; they could be crushed on the glass, and showed under the microscope the following characters: irregular corpuscles, granular internally and externally; the external granulations brilliant and somewhat characteristic;—most of the corpuscles were $\frac{6}{1000}$ of a millimetre in diameter, although unaffected by acetic acid. Though some other accessory elements were met with, the attention was chiefly confined to the tubercular structure which constituted the principal mass of the granulation, and left no room for doubt as to its character. There was also enormous development of the submaxillary glands, the hypertrophy of the glands of Peyer, and of the shut vesicles of the large intestine, containing an opaque fluid, that showed under the microscope granular corpuscles. In the spleen were "so much developed, that they could be seen through the exterior covering; and the spleen, when cut into, seemed to be formed entirely of them. They were decidedly larger than a large pin's head, and contained in the interior a mass of glandular corpuscles. But in this animal the mesenteric glands were not appreciably enlarged. It then appears that Drosera causes the production of tubercular elements in the lungs, and acts at the same time on the lymphatic system in general—thus presenting the analogy recognized in all ages between the tubercular affection and the lymphatic, not to say scrofulous temperament. In these experiments the hypertrophy of the lymphatic organs was a hypertrophy of the proper elements of the organs, and was unaccompanied by any plastic deposit.

Use in Tubercular Disease.—Dr. Curie says Drosera has been used with success in doses of from four to twenty drops in twenty-four hours.

ARTICLE XIV.—*Third Stage of Bright's Disease. Small Contracted Kidney. Atrophied Kidney. Gouty Kidney. Third Stage of Frerichs, Reinhardt, Bright, Christison, &c. Advanced Stage of Chronic Desquamative Nephritis, of Johnson. Stage of Absorption.* By E. E. MARCY, M.D., of New-York.

IN this form of the malady the kidney is reduced in size, contracted, indurated, fibrous, sometimes cartilaginous or even ossified, tough, rough, irregular and knobby on its surface. Its capsule is adherent, its cortical substance is shrunken and narrow, many of its tubules are denuded of epithelium, shriveled, and in many instances obliterated, while others remain filled and distended with remains of disintegrated and altered epithelium, and an albuminous, or albumino-fibroid granular exudation. From this general description it will be obvious why the disease has received the designations: *atrophied kidney, gouty kidney, stage of absorption, small contracted kidney, &c.*

We have already alluded briefly to several hypotheses of different writers respecting the origin of this form of Bright's disease, and have adopted in the main the views of the German writers, viz., that all forms of the malady are only successive stages of one original inflammatory renal congestion. An attentive comparison of the different stages of the diseases of several other organs with the affection in question, will throw much light upon the subject, and tend to confirm the position we have assumed.

We hold it to be a general law that all exudations must be preceded by more or less inflammatory action in the structures from whence they proceed, and that the capillaries of these parts must of necessity be abnormally irritated and excited in order to throw out from the blood the albuminous, fibrous, and other elements of granular and tubercular formations. The particular *kind* of exudation will depend upon dyscrasic and morbid influences present in each case, and the peculiar structure involved. Whether the exuded matters exist in the form of pulmonary hepatization or tubercle; hepatic granulation, tuberculization, or fatty degeneration; granular, fatty, or renal deposits, a primary inflammatory condition of the implicated tissue must have preceded the exudation. This supposition appears to us far more probable than that the exudatory process was an original and primary one, created suddenly and *de novo* by the presence of the elements of the deposit derived from the blood.

It is doubtless true that a very low grade of inflammatory action is capable of laying the foundation of morbid depositions, and that these incipient exudations may remain for long periods in various tissues without giving rise to any morbid symptoms, or to any perceptible functional disorders. Thus, in scrofulous subjects, colds affecting the pulmonary organs ever so slightly, may yet be sufficient to irritate the pulmonary capillaries in such a manner as to cause slight exudations from them of solidified protein substances (fibrin, albumen), in the form of simple, fibrinous, gray, millet-seed tubercles, or of yellow fibrino-croupous tubercles. In these instances, the primary inflammation is of so low a grade as to be almost imperceptible, and the consequent tuberculous exudations are proportionately small and unirritating. The same rule obtains with regard to exudations into other organs, the liver, kidneys, spleen, &c. These incipient depositions may occur in any part of the body, and remain latent and harmless, until some adequate exciting cause adds to them and rouses them into destructive activity. Alluding to tubercular depositions, Rokitanski observes that "the *seat of tubercle*, as exudate, is at any point of any texture, extraneous to the blood-vessels. Wherever there is a capillary range, a deposition of tubercle is possible." (*Path. Anat., p.* 230.) And the same may be inferred with regard to other exudates of an albuminous or fibrinous character, and originating from dyscrasic causes.

A pneumonia, for example, may run through all its stages rapidly—engorgement, red-hepatization, yellow-hepatization, softening, abscess, and the patient recover in from 30 to 40 days without any great injury to the lungs; or recovery may take place in from 5 to 10 days, at the expiration of the first stage, leaving a few points of hepatization throughout the pulmonary parenchyma. These spots of hepatization may remain harmless and unheeded for months or years, when some new exciting cause rouses them into morbid activity and develops tubercular phthisis.

In the same manner acute Bright's disease may run through its course to the second stage, leaving here and there in the cortical substance, a granular deposit. This deposit is slight and does not impair the normal function of the kidneys, and the patient apparently recovers, and remains well for months or years, when some new exciting cause rouses into activity the quiescent granulations, and thus develops the second stage of Bright's disease.

The two cases surely have a strong analagy in their origin, progress, and termination; and if we examine the intimate nature of the exudations in each case, we shall find a still more important resemblance, and be more disposed to respect the views of Christison respecting the scrofulous nature of all stages of the renal affection. It is true that the deposit is usually *albuminous* in one example and *fibrinous*, or *fibrino-croupous* in the other; but an explanation of this difference is readily found in the diversities of structure, dyscrasias, &c.

One of the most uniform results of all inflammations is an exudation of fibrine, albumen, or other material not pertaining to the healthy organ. According to the peculiar nature of the exudate, the quantity present in any case, and the structure involved, will be the probability of its remaining quiescent, or morbidly active. If the depositions are small and fibrinous, or albuminous, they may undergo the process of decadence, and thus remain as latent nuclei for the action of future inflammatory influences; or if the deposit be fibrino-croupous, it may soften down and be expelled from the system.

Comparisons and analyses of the origin, progress, and results of this and several other maladies, will enable physicians to trace resemblances of an interesting character. As a type for comparison we select pneumonia, and place its prominent symptoms side by side with those of Bright's disease.

First Stage of Pneumonia.	*First Stage of Bright's Disease.*
Inflammation of the parenchyma of the lung, and a consequent engorgement with blood. The morbid appearances of the lung in this stage are, distention of the pulmonary blood-vessels, swelling, softness, redness, and congestion of the parenchyma.	Inflammation and congestion of the cortical substance of the kidney, and engorgement with blood. The morbid appearances of the kidney in this stage are, distention of the renal-blood-vessels, swelling, softness, redness, and congestion of the cortex.
Second Stage of Pneumonia.	*Second Stage of Bright's Disease.*
Exudation of lymph, fibrin, and granular matter into the pulmonary tissue and red-hepatization—giving to the lung the appearance of liver.	Exudation of lymph, fibrin, and albuminous granular matter into the renal tissue. Pale, gray, or yellowish granulations in the cortical substance. The *tubuli uriniferi* distended with epithelium, either entire or disintegrated, and with an unorganized albuminous or fibrinous material.

Third Stage of Pneumonia.	*Third Stage of Bright's Disease.*
Yellow hepatization, or induration, and a subsequent softening down of the fibrino-croupous exudation, and its final expulsion in the form of pus; or if the exudation has been fibrinous in character, a cretefaction of the deposit.	Gray, pale, or yellowish granulations still visible in some parts of the kidneys. Kidneys contracted and indurated. Many of the *tubuli uriniferi* are denuded of epithelium and either much shrunken or entirely obliterated. The granulations give to the kidney an irregular knobby appearance.

In the first stage of both maladies we are presented with inflammatory congestion and the usual concomitants in the form of distention, thickening, and obstruction of the blood-vessels and tissues of the organs, and more or less functional derangement.

In the second stage we have an inflammatory exudation of granular matter into the disordered structures, as a direct consequence of the primary inflammation. The swelling of the structures, the capillary congestion, and other signs of acute inflammatory action have subsided in a measure, and depending upon the extent and severity of the disease, after a variable period, we are presented with the

Third Stage.—At the commencement of this stage, which has been termed that of absorption, nature makes efforts to rid the organs involved of the foreign matters which have been deposited during the first and second stages. The exudation into the lungs when composed of matter which undergoes the metamorphosis of *softening*, is thrown off in the form of pus; or if composed of matter which *cretefies*, it contracts and leaves the affected parts atrophied and impaired in function; while the renal deposit, being albuminous, and sometimes fibrinous in character, is converted into small, indurated granulations.

Several English and French writers, (Johnson, Rees, Bruce, Jones, Becquerel, &c.,) contend that this form of the malady becomes developed without the previous existence of inflammatory congestion. From the large size of the gland and the quantity of exuded substance which pervades its structure during the progress of the second stage, it is deemed improbable that it can be absorbed and reduced sufficiently to constitute the small contracted kidney. But this objection does not appear to be well founded, since in other parts of the body, morbid formations and glandular enlargements of much greater magnitude are often readily absorbed by the unaided efforts of the *vis medicatrix naturæ.* There is no more reason for supposing that this form of Bright's kidney is chronic from the commencement, and that the exudation occurs without previous inflammatory action, than that the distorted fingers and toes of gouty and rheumatic patients are caused by an original chronic gout or rheumatism. One or more acute attacks, perhaps mild in their character, must of necessity, have preceded the exudative stages of these disorders.

In this form of albuminuria the morbid deposit pervades the interstitial structures as well as the convoluted tubes, the capillaries are encroached upon, their function is either seriously impaired or totally destroyed, and uræmic (or ammoniacal) blood-poisoning obtains.

This stage often manifests itself so insidiously as to excite no suspicion of its serious nature either on the part of physician or patient, until near a fatal termination. Accompanied in most instances by some derangement of the heart, lungs, digestive organs, uterus, or liver, the few symptoms usually present are referred to some derangement of one of these organs. Too often, therefore, does the disease remain unsuspected and undiagnosed until the urgent and fatal symptoms of the last stage arrest attention. A sense of lassitude, with some slight dyspeptic symptoms, and an unusual pallor of the skin, many persist for weeks or months, perhaps so slight as to be deemed unworthy of medical attention. These ailments may continue for an indefinite period—usually from three to six months, when shortness of breath is observed on ascending a stairs, or other exertion, either accompanied or soon succeeded by anasarca of the face and limbs. These phenomena excite apprehension, and the urine is subjected to a careful chemical and miscroscopical examination. This secretion is found to be light, watery, of a low density, varying from 1005 to 1015, usually rather more copious than natural until near the close of life, when almost entire suppression with fatal cerebral symptoms supervene. Tested by nitric-acid and heat, we find albumen, but in much less quantity than in either the first or second stages. Occasionally no traces of albumen can be detected from the commencement to the termination of this stage. One case of this kind came under my own observation, in which there was an entire absence of albumen in the urine, up to the day of death. In this case, both kidneys were found reduced to one-third of their natural size, and filled with a firm and almost cartilaginous inter-tubular and interstitial deposit, their capsules could be detached only with difficulty, and the entire renal structure appeared to be altered—atrophied, and indurated.

Under the microscope the urinary sediment is found to contain portions of disintegrated epithelium and granular casts, or "large waxy casts" derived from the denuded basement membrane of the convoluted tubes. The number of granular casts, and of disintegrated particles, will of course depend upon the extent to which the urinary tubuli have been deprived of their epithelial linings. In some cases this tubular denudation is so extensive that no epithelium remains to be thrown off in the urine. In such cases the microscope only reveals a few waxy casts, and the inference follows that the malady is in an advanced stage.

After the tubuli have become denuded of epithelium, cysts often form within them, upon the basement membrane, containing a serous or albuminous fluid, enclosing various substances, like oil, granular and fatty matters, occasionally fat-cells, and sometimes urinary salts. This fluid is either of a yellowish or brown color, generally thin and clear, but sometimes viscid and turbid in appearance.

The renal arteries are hypertrophied, the coats of the malphighian capillaries are thickened, while the renal veins and the inter-tubular capillaries are found atrophied.

The pernicious effects resulting from the retained urinary constituents are more striking in this stage than in either of the others, in consequence of the more complete destruction of the secreting cells of the cortical tubes. As a consequence the supervention of secondary ailments in the form of inflammations of the serous membranes, dropsical effusions, cardiac affections, stomach and intestinal disorders, &c., is proportionately more rapid and violent.

What we have written under the head of the second stage respecting these secondary affections, is so applicable to this stage, as to render any further remarks upon the subject in this connection superfluous.

MORBID ANATOMY.

Resumé.—Kidneys contracted to one-third, and sometimes to one-fourth of their normal size. External surface rough, whitish in color, and covered with irregular nodosities or prominences. Renal capsules more or less firmly adherent to the glands. Internal substance of the kidneys firm, indurated, tough, and occasionally cartilaginous, or even crustified.* "Many *tubuli*, which have lost their epithelium in consequence of the exudations poured out in them, become atrophied, and ultimately disappear altogether, while groups of others are seen, filled with a fatty, broken-up exudation, and dilated into minute nodosities (granulations, Christison)." The cortical substance narrow and indurated. Granular appearance of the kidneys on section, in consequence of tubular and interstitial depositions. Granular depositions of a white or grayish color. Hypertrophy of the renal arteries, thickening of the Malphighian capillaries, atrophy of the intertubular capillaries, and of the minute renal veins.

DIAGNOSIS AND PROGNOSIS.

In this form of the malady there is a greater destruction of the secreting tubes of the cortex, than in either of the other varieties, and a proportionate augmentation of danger in the constitutional manifestations. Emaciation, diminution of red-globules in the blood, disalbumination of the blood, and pallor of the skin, are more strongly pronounced than in the first stages. The urine is greater in quantity, lighter in color, lower in density, and in general less albuminous than in the other forms. The urine is destitute of, or contains a much less quantity of disintegrated epithelium and epithelial cells, and a greater or less number of waxy casts formed on the basement membranes of the *tubuli*, in place of the fibrinous and granular casts peculiar to the first and second stages. Dropsical symptoms are less uniform and less urgent and troublesome than in the preceding stages. Cardiac complications are more often found in this variety than in the others.

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* Kolliker's Mic. Anat, p. 601.

A reference to the extent and serious nature of the morbid alterations of the kidneys will show the futility of expecting a cure of this advanced stage of the malady. The physician can not promise or hope for any thing more than a palliation of suffering, and perhaps a greater or less prolongation of life. By an early attention to the diagnostic signs presented by the urine, and a prompt resort to suitable remedial measures, the medical man may accomplish much towards alleviating distressing symptoms, and protracting the fatal result.

TREATMENT OF THE THIRD STAGE.

From the grave nature of the morbid lesions, which are always present in the small contracted kidney, the physician can expect but little more than to palliate sufferings and to prolong life. He cannot restore or reproduce the obliterated blood-vessels, which have supplied the glands with the elements of nutrition and health, nor can he re-open their atrophied and obliterated *tubuli*, or restore to them their disorganized and lost epithelium, nor can he disperse the intertubular and interstitial granular exudations which pervade the organs and pervert their functions. But, by carefully regarding the totality of the symptoms of each case, and selecting the appropriate remedy, the homœopathic practitioner may accomplish much towards alleviating the distressing consequences of the malady and prolonging life. The principal medicines in this stage are the following:

ACONITUM NAPELLUS.—Appropriate when inflammation of one or more of the serous membranes supervenes, with more or less febrile reaction.—Also in heat and dryness of the skin of the body and head, coldness of the extremities, nervousness, restlessness, sleeplessness at night, oppressed respiration, great weakness, sensations of numbness and prickling, tendency to spasms and convulsions, scanty or suppressed urine. We have often witnessed satisfactory results from this medicine in alleviating the above phenomenon, and in allaying temporarily nervous excitement, which had prevented sleep and rest day or night. It is also useful against the diurnal drowsiness and disposition to coma and convulsions, which are so common and so alarming in the later periods of this stage. In several instances of this description it has apparently postponed the fatal issue.

Ammonium Carbonicum.—Useful against great weakness, lassitude, sense of fatigue, short hacking cough, great difficulty of breathing, particularly in the evening and at night, painful oppression of the chest, drowsiness, prostration, spasmodic twitchings of different muscles.

Arsenicum Album.—There are groups of symptoms in all stages of Bright's disease for which this medicine may be prescribed with benefit. Its power of causing general emaciation, a wasting of all the tissues of the body, of robbing the blood of its red corpuscles, and of superinducing a general condition of anæmia, with its usual concomitants, anasarca, dropsies, disorders of the gastro-intestinal apparatus, great loss of vitality, cardiac derangements, pulmonary oppressions, and cerebral and nervous phenomena, render it a remedy of great value even at this advanced period of the malady. From a fair amount of practical experience with this drug in small contracted kidney, we are satisfied of the great superiority of the medium and higher attenuations; for we have not unfrequently succeeded in relieving temporarily urgent and alarming symptoms with a 30th dilution, after having entirely failed with the 3d attenuation. In this matter of dilutions we are actuated by no prejudices or partizanship, but having tested practically all strengths of the drug, we record our opinion in favor of the attenuations above mentioned.

Astacus Fluviatilis.—When the small contracted kidney is clearly connected with a gouty diathesis, and the disease has been preceded and accompanied with occasional paroxysms of gout and chronic eczema, with great prostration of strength, internal coldness, trembling in the renal region, large emission of pale, watery urine, and albuminous urine, this medicine has been serviceable. We have usually prescribed it at the sixth dilution.

CANTHARIS VESICATORUM.—Among the alarming symptoms of this disease is a sudden diminution or even suppression of urine, which speedily superinduces drowsiness, a state of semi-stupor, accelerated and laborious respiration, palpitation of the heart, great weakness, convulsive movements, cold sweats, and a general increase of all the symptoms. A timely administration of a few doses of this medicine will sometimes restore the urinary secretion, and ward off fatal coma and convulsions.

DIGITALIS PURPURA.—When cardiac symptoms predominate during this stage, in consequence of hypertrophy or dilatation of the ventricles of the heart, with oppressed and difficult respiration, great weakness, drowsiness, lethargy, disturbed and unrefreshing sleep, spasms, or convulsions, Digitalis is homœopathically indicated. Several eminent French writers deem it especially useful when the disease occurs in children.

FERRUM-ACETICUM.—A remarkable result of Bright's kidney, consists in such a loss of the red corpuscles of the blood as to produce a veritable state of anaemia, characterized by great emaciation, paleness of the skin, puffiness of the face and eyes, general anasarca, dropsical swellings, hypertrophy, or dilatation of the ventricles of the heart, cardialgia, nausea, loathing of food, vomiting, frequent diarrhœic stools, fullness of the chest, difficult breathing, copious and watery urinary discharges, great languor, weakness, faintness, drowsiness, tremulousness, tendency to spasms and cramps. All of these symptoms are covered by

Ferrum-Aceticum, and should always receive careful consideration in groups of this description. Other preparations of Iron may be employed with advantage under similar circumstances. Of these the *Ferrum-metallicum aud Ferrum-iodatum* are best.

Kali-Hydriodicum.—Chiefly appropriate at an early period of the stage of absorption, particularly when the malady has been associated with a rheumatic or gouty diathesis, secondary syphilis, or with a mercurial cachexia. See pathogenesis Aug. No., page 14, &c.

Kali-nitricum.—We have already alluded to the utility of of *Nitricum* in both acute and chronic albuminuria, when there are nightly paroxysms of rapid, and difficult respiration, drowsiness, much gastric disturbance, sudden swelling of the body, neck, and thighs, diminution, or suppression of the urinary secretion, weak, irregular and slow pulse, tendency to spasms and convulsions. We are in the habit of prescribing the medium and high attenuations in these cases.

Mercurius-sublimatus-corrosivus.—This substance possesses in a high degree the property of thinning the blood—of diminishing materially the number of its red corpuscles, and thus of of inducing a condition of anæmia resembling that peculiar to contracted kidney. The following are its principal phenomena having relations to this stage of Bright's disease: great emaciation, pale or waxen color of the skin, greatly impaired vitality, shortness of breath, anasarcous, diarrhœic, or dysenteric discharges from the bowels, condition of various parts of the body, dyspeptic disorders, urine copious, watery and albuminous, or scanty and albuminous, or suppressed, spasmodic movements in the extremities, general loss of strength and vigor.

As in the previous forms of the disease, we prefer the medium attenuations.

Mercurius-iodatus. — Occasionally in advanced stages of Bright's disease *Iodide of Mercury* is beneficial. We believe it to be specially indicated when the urinary secretion becomes diminished, accustomed diarrhœic discharges become checked and pulmonary and cerebral symptoms of a threatening character make their appearance. In cases of this kind a few doses of a low attenuation will sometimes afford marked relief.

Terebinthina.—The following symptoms point to this remedy: Face pale and sunken, soporose condition, languor, confusion of ideas, great difficulty of breathing, general sinking of the vital powers, scanty or suppressed urine, general feeling of *malaise.*

ARTICLE XV.—*An Essay on Remedial Analogues, with Suggestions relative to a Reconstruction of our Materia Medica.* Read before the Illinois State Homœopathic Association. By E. M. HALE, M.D.

THE great *desideratum* in medicine, is a perfected *materia medica:* one that shall be scientific in its construction, and capable of meeting all the wants of the physician. Although the allopathic school has labored for centuries to bring order out of the chaotic mass of medicinal agents, they have but imperfectly succeeded. They have given high-sounding names to certain classes of drugs, but admit that these arbitrary names fail to give correct ideas of their powers and virtues. Their *diaphoretics* often fail to induce perspiration, and their *diuretics* are notoriously uncertain, and so with every other class or group, they are not reliable in practice, and those who depend upon them are obliged to grope blindly along, with no other indication to lead them, than bare empiricism, or the dictates of intuition.

Nearly unacquainted with the effects of drugs upon the healthy, and rejecting the law of *Similia*, the dominant school must necessarily have but an imperfect materia medica. In the homœopathic school the same want of a perfected materia medica is felt, but in a less degree. Thanks to the vast intellect and wonderful industry of our great master, we have not only a more thorough knowledge of the physiological action of drugs, but we have a law of cure, which makes such knowledge of incalculable value to us,—a value which other schools have blindly and obstinately failed to appreciate. It is to Hahnemann that we owe what of real scientific value was given to materia medica during the eighteenth century. He laid the foundations of a system of practice which has greatly modified all others, and will eventually absorb them all.. In asserting this I would not depreciate the valuable labors of such experimenters as Stork and his colleagues, or those who have worked ardently in the study of drug-action since Hahnemann died. All those are worthy of great praise, and their valuable labors will be appreciated by coming generations. And here permit me to digress long enough to denounce in no measured terms those who claim to belong to our school of practice, but who are vile enough to sneer and revile our great master. It is now nearly fifteen years, since, a student of medicine, attending a homœopathic college, I heard a professor, brilliant and talented, and admired until then by his class, step aside from his vocation, to defame the name and depreciate the labors of Samuel Hahnemann. From that time I, in common with many of my fellow-classmates, have had no other feeling than contempt for that man, who could, in an institution devoted to homœopathic medicine, attack the character of our founder. Since then we have occasionally seen in our various periodicals, and in works devoted to homœopathy, allusions more or less derogatory to the services of Hahnemann. The latest outrage to the memory of that great and good man appears in a pamphlet published in England, and written by Dr. Sharpe, in answer to Sir Benj. Brodie. This Dr. Sharpe seldom mentions the name of Hahnemann without some disparaging remarks. He says: "I have noticed every feature of Hahnemann's exposition of his system, and there is not one which I admire, or can adopt in the terms in which they are propounded by him. As expressed in his writings, they all, without exception, excite in my mind a strong repugnance." And this language from a pretended homœopathist!! One of the editors of the *British Journal of Homœopathy*, in a *critique* on this pamphlet, rightly says: "We doubt if any professed opponent of homœopathy ever gave such an unfair and depreciatory account of Hahnemann's introduction of his discovery," as is to be found in Dr. Sharpe's pamphlet. It is satisfactory, however, to know, that such revilers meet a just retribution. Without exception, they all sink sooner or later into the sloughs of quackery and ignominious obscurity. The professor to whom I alluded is now a vender of disreputable medicines; and Dr. Sharpe will in due time find his proper place below the lowest in the profession.

I have said that the principal need of the homœopathic profession is the perfected, or at least a better arrangement of our materia medica. Hahnemann and his disciples did the best they could do with the materials at their command. They were not, *could* not be acquainted with the later developed discoveries in physiology, chemistry, and pathology. The wonderful power of the microscope in bringing to light the hidden mysteries of disease and diseased structures was at that time unknown. In reality, situated as they were, they were far in advance of their age. I have no hesitation in repeating what I have before asserted, that, had Hahnemann lived in this generation, he would have built up one of the grandest medical systems of which we can conceive. We of the present day have none of the obstacles to retard our progress, none of the difficulties to encounter which beset his career; therefore we are blamable if we do not perfect the work which he so grandly begun.

With these preceding remarks, and because the term covers the whole ground of the subject introduced, I propose to call your attention to the consideration of

REMEDIAL ANALOGUES.

If we could satisfactorily classify all the remedies with which we are acquainted—if we could arrange them in groups in a truly scientific manner—then we should have what we are all wishing for: a materia medica *approaching* perfection. Probably no other subject is attracting so much of the attention of the thinking members of our profession at this time. We consider our law of cure perfect and infallible, or would be so, could we always select a remedy in actual accordance with its principles. And here lies the great difficulty; it is this which calls forth the demand for a fuller development of our provings, and a better arrangement of those provings. Therefore no more important subject can engage our attention. It should stimulate us to deeper studies into the action of drugs, and more complete investigations into their relations to each other.

With but one exception, all our writers on materia medica have arranged our remedies in *alphabetical* order,—leaving it for the student to select or class analogous medicines by the tedious process of exhaustive study, or rely upon the authorities of our various repertories. You will all agree with me, that the former process is one of great labor and perplexity. To the young and busy physician it is a task which takes much from his success in practice, and it is only after many years of patient study that he becomes at all satisfied with his classifications. I speak from sad experience in this matter. In fact, I consider it utterly impossible to properly group analogous drugs in the present condition of our materia medica. Our repertories are faulty at best,—some of them are notoriously so. As a single example, selected at random, is the remedies laid down for "abscess of the liver;" Silicea and Lachesis only are mentioned. Now we do not know that either of these drugs ever caused hepatic abscess, while we do know from post-mortem examinations that Mercury does. These errors might be multiplied to any extent. Sometimes the remedies are set down according to some fancied pathogenetic similarity, sometimes from some clinical experience, and often placed according to the mere whim of the writer. We shall never have a reliable and respectable repertory until we have a better arranged materia medica, and better provings of our medicines.

In the history of homœopathy there have been but two attempts at a systematic arrangement of our materia medica. Hahnemann divided all proven medicines into two great classes:

1. *The Polychrests.* 2. *The Anti-psorics.*

It would seem that he considered the first class particularly fitted to treat acute diseases. Upon them he relied to meet the many indications to be found in all maladies of an acute character, presenting many and varied symptoms.

The latter class were those which he considered to have a specific relation to the all-pervading psoric miasm, which he considered to be the foundation of all chronic diseases. This is the general impression one gets from reading his writings; although he nowhere confines the use of either class to any particular class of diseases, yet he certainly relied upon the antipsorics to eradicate the poison of chronic maladies.

It seemed to be Hahnemann's idea, that all other classification should be avoided, as tending to mislead the mind by false conclusions as to the real action of drugs. He ridicules unmercifully the arbitrary arrangement of the allopathic materia medica of that day, as being not only useless, but absolutely pernicious. And he was not far from right: for it is only until the last few years that anything like a correct notion of drug analogy has entered into allopathic literature. Trousseau and Pidoux of France, and Wood, of our own country, seem to have some idea of the proper relation of drug action; but even in them we do not find anything but *crude* ideas at the best.

Although the materia medica of Teste is a valuable addition to homœopathic literature, it so abounds with flippant assertions and hasty conclusions as to preclude it from ever becoming a standard work in our profession. But as it is the only work we have which attempts any classification of remedies, it should be thoroughly scanned and criticised. In his Introduction Teste admits frankly, that the "elements of such a scientific organization of materia medica (as we ought to have) is wanting." Yet he claims "to possess notions sufficiently correct not to have committed any considerable errors in the formation of his categories, or *groups*. He goes on to say, that he has organized his *groups* upon the following *data:*

1. *The Natural History of Drugs.*—Curiously enough, he does not regard this as designating the kingdom, family, or genus from whence they are drawn, but the *location of their spontaneous growth.* This idea is worthy investigation.

2. *Known Effects of Drugs on Animals of Different Species.*

3. *Empirical Application of Drugs.*—Of this he says: "In this way I have found even in allopathic traditions—that is to say, in the records of clinical experience, and independently of all pathogenetic investigations—the first data for a logical systematization of our materia medica. But the principal foundation for his *groups* or analagous medicines is of course the provings of Hahnemann and others.

All these *data* of which Teste has availed himself are very well so far as they go; but in my humble opinion, he has left out *the most important* guide in the construction of a scientifically organized materia medica; I mean the relation of drugs to each other by their *pathological effects upon animals and men.*

I propose to consider some of the groups collected by this author, viewed from the stand-point of their pathological action, and at the same time compare them with the groupings of Wood, Trousseau, and other prominent allopathic authorities. Teste places at the head of his nineteenth group *Belladonna*, and considers Arnica, Clematis, Ruta, Tabacum, &c., as its proper analogues. Now in my investigations I cannot find in these drugs any symptomatic analogy which would warrant such a classification. If any of their symptoms simulate those of Belladonna, it is only faintly; even the cerebral symptoms of Tobacco are due more to cerebral depression than excitement or hyper-irritation. From this group too he has left out *Cicuta* and *Æthusa*, which not only resemble Belladonna in their pathogenesis, but in their pathological effects. When we compare this group with Wood's Class Third, we find them similar in construction. This allopathic author places all the medicines of Teste's Belladonna group, except those to which I objected, under the head of cerebral stimulants, the type or chief remedy of which is *Alcohol.* Had Teste based his classification upon known pathological effects, instead of symptomatology alone, his group would have been almost precisely that of Prof. Wood. But Teste's most faulty group is that typified by *Aconite.* In fact, he admits as much when he says, "The five drugs which I mention here as the analogues of Aconite have only a very *vague relation* to it." But is it not strange, that he should assert that "Aconite has no analogues?" that no other drug "affects even approximately the heart and vascular apparatus, as *Aconite?*" and that "inflammatory fever is a phenomena that belongs exclusively to this great agent?" This latter assertion has its advocates and opposers,—many claiming Aconite as homœopathic to inflammatory fever, and many who stand high denying that it causes fever at all. The truth here, as is often the case, is between the two extremes: Aconite is not primarily homœopathic to fever, but secondarily. As regards the other observations, which of you would class Aconite with Dulcamara, Chamomilla, and Cocculus, instead of Digitalis, Tabacum, and Veratrum-album, not to mention those remedies with which Teste was probably unacquainted, as Gelseminum, Verat.-viride, and Cimicifuga? all of which *do* affect the "heart and vascular apparatus" in a manner very similar to Aconite.

Probably the most satisfactory group to be found in Teste, is the one typified by *Mercurius-solubilis*, but in order to make this stand the test of practical investigation, we must throw out *Crocus*, and substitute *Iodine*, which, with characteristic assumption, he has placed in a group headed by *Ipecacuanha*, with which it has not the least analogy, and *Sulphur*, which he has placed as the type of a group whose constituents are *Lobelia*, Cicuta, Bovista, and other remedies, most of which have no real analogy with this potent drug.

With the addition of Iodine and Sulphur, Teste's Mercurius-group is nearly identical with the alterative group of *Wood.*

It is a significant fact that many of Teste's *groups* much resemble the "*classes*" arranged by *Wood*, and as this latter writer arranges his drug-analogues much after the manner of Trousseau and Pidoux, we may naturally conclude that Teste received more hints from, and imitated his allopathic colleague more than he would like to admit. Yet it is not strange or unnatural that these *three* representative authors, although belonging to different schools, should coincide as to the proper groupings of remedial agents. Medicines will form themselves into groups, influenced by the inevitable laws of analogy, and all arbitrary classifications must fall to the ground.

Teste groups his remedies from their *pathogenetic resemblances*, while Wood and Trousseau class them according to their proven or supposed physiological and pathological effects. The former failed because of the imperfect *data* afforded by pathogenesis alone, while the latter failed equally, because they ignored our pathogenises or provings, and relied too much on general suppositions.

I trust my colleagues will not condemn me as egoistical, if I offer a few suggestions relative to a reconstruction of our Materia Medica, so as to place it upon a purely scientific basis, such as will challenge the admiration and respect of the members of all schools. We will first consider the propriety and necessity of a systematic grouping of the various remedial agents which compose our present Symptomen Codex and other works of like character. Next, those remedies whose analogous effects shall give them a place in groups, typified by a representative agent. I propose to throw in here and there certain clinical remarks concerning remedies not generally known to our profession.

First, as to the propriety and necessity for a systematic grouping, I believe the majority of my colleagues will agree with me upon its importance, if it can be done in a truly scientific manner. Hahnemann and the earlier homœopathists who selected remedies entirely from their symptomatic resemblance to the malady to be treated, were either unacquainted with, or ignored the value of pathology as an index of the real nature of disease processes. And, as a consequence, they could not see its importance in the selection of remedies with which to combat such processes. Hahnemann declares in his Organon, that the "totality of the symptoms" indicate the real nature and essence of the disease; that we need no other criterion; and that all other indications are worthless. He and his disciples even ignored the chemical treatment of morbid conditions, as a monstrous fallacy, believing that the dynamic power of drugs could neutralize all such abnormal states.

But with the advances made in the study of pathology, this implicit reliance upon mere symptomology is daily growing less. For several years the most prominent minds in our ranks have recognized the importance not only of a thorough knowledge of the pathology of diseases, but the pathology of *medicines*. There is a growing desire to know not only the pathogenesis of the remedial agents, upon which we rely: but to become acquainted with the pathological effects of those agents. Such writers as Drysdale and Dudgeon of England, Curie of France, and Marcy, Hempel, and Ludlam of America, are throwing their great influence into the scale, and the effect will be proportionate. Those who in the present time affect to underrate the value of pathology in relation to general and special therapeutics are to be pitied. They are retrograding from an advancing age, and Hahnemann, were he now living, would disown them as his disciples!

I have noticed, even within the last few years, in the discussions in homœopathic assemblies both in Europe and this country, such remarks as this, that "Homœopathy cares little for physiology, less for chemistry, and for pathology *nothing at all!* Is this the language of science? It is with regret and mortification that I see such expressions given to the world through the medium of our literature. Does such an opinion denote the real *status* of Homœopathy? I hope and believe not! As the value of pathology is more appreciated, so will the importance of a reconstruction and systematic grouping of our remedies be seen. Teste has begun the work, but in an imperfect manner. Let us emulate his example, and do for posterity what Hahnemann and his colleagues have done for *us.* In the scientific grouping of remedial analogues, what law shall guide us in our selections? Shall we take into consideration only their general effects, when given in disease, after the manner of the dominant school? Certainly not, nor their purely pathogenetic effects upon healthy organisms, after the manner of Teste, but *from their joint pathogenetic and physio-pathological effects upon healthy men and animals!*

Do you say that the building up of such a Materia Medica would involve immense toil and time? Grant it! but remember that "there can be no excellence without great labor," and in this respect we shall have done no more than has been done by Hahnemann and his disciples. The work of proving so many remedies has been truly herculean! full as great as will be the work of re-proving them to discover their pathology. It must be done! I cannot conceive any other manner by which we can build up a perfected Materia Medica. You will bear me witness that we all instinctively group the remedies we use; and if we compare notes upon this subject we find that our groups have a remarkable general resemblance; and what is more noteworthy, we find that our natural groups are based upon the law above enunciated. We instinctively select remedies from the remotest parts of our alphabetically arranged Materia Medica, and in treating a given form of disease compare our group with it, in general, and then each one in particular, until we select the specific *Similimum.* For illustration, we will suppose a case of fever or inflammation, with its attendant excitement of the circulation. Immediately we think of *Aconite*, that great type of the fever-analogues. We then call up around it such drugs as:

Veratrum-viride,
Veratrum-album,
Bryonia-alba,
Digitalis,
Colchicum, and
Gelseminum.

or perhaps:
Tartar-emetic.
Cimicifuga.

Why do we select these remedies from the whole? Not because their mere *symptomatology*, but because they all produce certain physiological and pathological effects of a definite character. In brief, they reduce the activity of the circulation, calm nervous excitement and the excessive action of the heart, and prevent congestion and inflammation. That they have power to do this, our provings and clinical experience abundantly prove. But there are other reasons why we should form these remedies into one group. The pathological states which they cause are nearly identical, or at least very similar. They may be very briefly stated thus:

Primary: Paralysis of voluntary and involuntary motion and sensation; intense venous congestion of the brain and its membranes, lungs, and abdominal viscera; the heart loses its contractility, and the blood becomes dark and coagulated; asphyxia, serous exudations, &c.

Secondary: Reaction brings with it arterial excitement, and congestion of all the organs of the body, and even inflammation may set in; spasms, tremors, and general irritation following the previous depression.

Of course, the effects of these medicines are not identical, but similar, just as the morbid states which call for this group are not identical, and the remedy must be selected according to its similarity to the diseased condition. Another rule to be followed in grouping medicines, is, that they must be arranged according to their primary effects. Thus it would not do to place Belladonna in the Aconite group, for, although both cause arterial congestions, with the former it is *primary*, while with the latter it is *secondary*. The natural sequence of drug-action must be understood, if we would have a clear idea of their relations to each other, and to disease. The rule laid down by Teste is valuable in this respect. He teaches that we must select a remedy whose primary symptoms resemble the primary symptoms of the disease to be treated. Thus, if we give Coffea for sleeplessness, it must be a primary state, and not preceded by stupor or drowsiness, or if we give Nux for constipation, it should not have been preceded by diarrhœa.

Prominent among the principal groups of medicine is that typified by the great representative remedy, *Belladonna*, whose pathogenetic and pathological analogues are,

Strammonium,	Opium,
Hyosciamus,	Glonoine,
Agaricus,	Alcohol,
Cannabis-indica,	Æthusa, &c.

This group is a very natural one; they are the narcotics of the older writers; the cerebral stimulants of Wood, and is similar to the Belladonna group of Teste. The peculiar characteristics of these remedial analogues are that they cause—*primarily*,

Active congestion of the brain and membranes.

An excited strong circulation.

Delirium, always active or furious.

Irregular spasmodic action.

Secondarily, The stage of prostration, denoted by paralysis of the voluntary and involuntary muscles, coldness and paleness of the surface, coma, or asphyxia and death.

You are all so familiar with the symptoms of Belladonna that I need not mention them here, but will call your attention to some of the uniform pathological conditions noticed in fatal cases of poisoning by members of this group.

An engorged state of the vessels (arteries) of the brain and lungs.

Extravasations of blood, and effusion of serum.

A fluid state of the blood.

Of course each remedy produces pathological conditions, differing from each other, as much as they differ in their symptomatic manifestations. Thus the vascular engorgement: the extravasation of blood and serum, may be located differently in the case of Belladonna and Opium. But it is the general similarity of action which defines the group. Other medicines cause similar pathological lesions (as Aconite and Gelseminum) but their mode of action differs from that of Belladonna and its analogues.

The apoplexy caused by Belladonna is the result of primary active arterial congestion of the brain; of Gelseminum that of passive arterial congestion; of Aconite, secondary arterial congestion, while that of Conium is the consequence of venous congestion.

To illustrate how important is this distinction, we will suppose the physician called to a case of threatened or actual apoplexy. The patient cannot speak to give us the subjective symptoms, the pain, vertigo, and the special character of the sensations. What is a mere symptomatologist to do? He is entirely without a guide and must prescribe at random. But the scientific practitioner will ask himself, what *kind* of apoplexy is this? What is the peculiar characteristic condition? Is it hæmorrhagic apoplexy? Belladonna, Agaricus, and Opium cause this variety. Is it serous? Arsenic causes effusion of serum into the cavities of the brain. Is it sub-arachnoid? My experiments with Gelseminum prove that it causes that variety of apoplexy. Thus in the absence of the subjective symptoms, we are not left to an empirical routine, if we know the pathology of our medicines.

Chloroform is typical of an interesting group of remedies, which seem to hold an intermediate relation to both of the preceding groups.

Gelseminum,
Conium,
Hydrocyanic-acid,
Lactucarium,
Mesmerism,
Zinc,

are members of this group. Unlike the Aconite group the central functions are primarily depressed, and consciousness is abolished. Unlike the Belladonna group they cause no cerebral stimulation (as a general rule) primarily. Drowsiness, insensibility, and loss of consciousness result from both groups, but with this difference:—the chloroform group causes these symptoms primarily; the Belladonna group secondarily. In other words, the latter primarily excite the cerebral functions, which subsequently become impaired through the overwhelming congestion of the nervous centres; the former produce the latter effect *immediately*, without any preliminary excitation. This distinction seems to me to be of vital importance in the treatment of disease, as having an important bearing both on the selection of the remedy and the dose.

In antagonistic relation to the last-mentioned group comes that which is represented by that wonderful polychrest *Nux-vomica*, whose congeners are

Ignatia,
Angusturia,
Arnica,
Æsculus-glabra,
Ergot.

Teste, with strange inconsistency, places Nux-vomica and Ignatia in different groups; the former with Veratrum and Arsenicum, the latter with Ipecac. and Pulsatilla. The real pathological condition upon which depends all the symptoms of this group is that of spinal congestion, irritation, and stimulants (primary), followed by spinal depression, paralysis, and softening (secondary).

With the chloroform group these conditions were reversed. If the nervous centres rally from the depression induced by them, tetanic symptoms often set in. Thus in the experiments with *Gelseminum*, tetanus occurred in a dog, after a condition of profound depression, with general anæsthetic paralysis, in which death seemed imminent. But there is one important difference between the pathological effects of the Nux and the Belladonna groups, to which I wish to call your attention. In that splendid work by Brown-Sequard, "The Central Nervous System," as also in its sequel "On Paralysis of the Lower Extremities," it is stated that experiments show that *Nux* and its analogues primarily cause congestion (fullness) of the vessels of the spinal cord and its membranes, while Belladonna and its analogues primarily cause an opposite condition or a contraction of the vessels of those tissues. To the homœopathists these facts are of the first importance. They not only show the essential difference in the character of the two groups, but indicate the real homœopathic remedies in the various forms of paraplegia.

Brown-Sequard's works should be in the hands of every homœopathist. It gives very clearly the differential diagnoses of the two chief forms of paraplegia, and enables *us* to select the proper remedy with much certainty. That author not recognizing the law of *Similia*, gives Belladonna for its supposed antipathic effect in congestion of the spinal cord. We would in such cases give the preference to Nux-vomica in the higher potencies, or, according to my law of dose, give Belladonna in the lower dilutions, if the congestion was secondary.

Mercurius naturally takes its place at the head of one of the most important groups in any materia medica. In allopathy it typifies the *alteratives*, a class of medicines which that school value very highly, but of which they know so very little.

Teste has placed Mercurius-solubilis as the type of a group containing Crocus, Sulph.-ac., Plumbum, and Stannum, remedies which have but little analogy with the real sphere of action of Mercurius. At the same time he leaves out such remedies as Aurum, Hepar-sulph., and the Chlorides, all of which naturally belong to this class. He makes his selection of these congeners because "they are, in their natural state, possessed of the power of preserving organic matter from decomposition, yet exercise an exactly opposite effect upon the living tissues," a property which cannot be credited to Stannum or Crocus. He overlooks the most important indication for the selection of the congener of Mercurius, viz., the profound and primary effect of that drug upon the whole glandular system.

Hempel, in his "Organon," rightly says that "The object of every rational proving is, to find out the starting point of the action of the drug in the organism. This fact being known, we have made one great step towards the scientific organization of our materia medica." If we follow this law, and no other seems to me at all proper, we must select for the analogues of Mercury *similarly-acting medicines upon the glandular and other systems.*

A modification of the Mercurius group of Teste, and the class "*alteratives*," of Wood, would seem to me the most likely to form a truly scientific and practical group. Thus:

Mercurius and its various preparations,
Arsenicum,
Iodine and its compounds,
Aurum,
Nitric-acid,
Hepar-sulphur.,
Chlorine and its compounds,
Ammonia-muriat.,

to which I would add those valuable but new remedies:

Podophyllin,
Iris-versicolor,
Phytolacca,
Leptandria.

Of these four last mentioned remedies only two have been proven by our school; the Podophyllin and Phytolacca; and of these the former is the only one used to any extent by our physicians. Still the Podophyllin is not sufficiently appreciated by those who have used it; partly because of the narrow sphere to which they confine it, and partly from want of a correct knowledge of its sphere of action. Its primary effects resemble those of the more irritating preparations of Mercury, the Merc.-*vivus* and *solubilis*. A careful study of its pathogenesis, and its free use in practice as a substitute for its metallic congeners will amply repay the practitioner.

As natural analogues of the Mercurius group, these vegetable medicines and their alkaloids deserve a closer investigation from members of our school than they have yet received. In one-half the cases where Mercurius is now used by us, great advantage might be gained in the cure of disease from the use of these remedies. Those organisms especially which have been saturated by Mercury in the hands of the allopathist, become, to a certain extent, unresponsive to the action of that agent when used homœopathically by us. We then have to select other remedies of similar therapeutical power: Sulphur, Nitric-acid, or Aurum, but even these do not compare with their vegetable rivals. In the treatment of old hepatic disorders, aggravated by the use of *Merc.*, the Podophyllin, Iris, and Leptandria become invaluable. For those mercurial eruptions, glandular indurations, and disorganizations of osseous and other tissues, so obstinate and perplexing, the Phytolacca is of wonderful efficacy. Our pathogenesis of this drug, valuable as it is, is but a faint image of its real powers. In the cure of hepatic disorders it fully equals Mercurius and Nitric-acid; in chronic skin diseases and ulcers it compares with Arsenicum, Iodide of Potash, and Sulphur; in the treatment of glandular enlargements and certain forms of scrofula it is more valuable than Iodine and its preparations; in affections of the throat it rivals the Iodide of Mercury and Hepar-sulphur., and it is equally efficacious with Corrosive-sublimate in many renal diseases. No remedy in the whole materia medica is as useful in chronic rheumatism, and especially in syphilitic or periosteal rheumatism. In this painful affection my own experience enables me to give testimony to its efficacy, for I have treated obstinate periosteal and neuralgic pains successfully with the Phytolacca, which had resisted all other remedies, even the Iodide of Potash. I have often wished that Hahnemann could have proven this remedy. He would have made a splendid anti-psoric of it, ranked only by Sulphur and Calcarea.

In the treatment of syphilis we are too apt to follow the routine usage of allopathy and resort to the indiscriminate use of Mercury, even in material doses. This should not be when there is abundant testimony from the most trustworthy members of the eclectic school and of our own, that the Phytolacca and Iris are equally valuable in that disorder. I have used the former in many cases of secondary syphilis and with very satisfactory results.

Our eclectic colleagues unite in saying that the *Iris* "in eradicating the syphilitic virus has few equals, and that its influence is positive and certain."

In the first volume of the *Philadelphia Journal of Hom.* is a proving of the Iris, by Dr. Rowland, then of Quincy, and in the N. A. Journal, of 1857, Dr. Kitchen has an article on its use in some forms of gastric and intestinal irritation. This, I believe, is the only mention of the remedy to be found in our works. It is used by our school in sick-headache, vomiting, and certain forms of diarrhœa and dysentery, with alleged success. No proving has yet appeared, save the one alluded to. The eclectic school, however, consider it one of their most valuable agents: it is their great substitute for Calomel; with it they cause *salivation* and all the so-called alterative effects of Mercury; but, as they allege, without any of the bad effects of that poison. Dr. Grover Coe thus speaks of its action on the glandular system: "A careful distinction must be made between the effects produced by vegetable agencies (Irisin, &c.) and mercurial salivation. The former are nothing more nor less than manifestations of a quickened physiological activity, evidences of special therapeutic stimulus, constituting oftentimes a critical conservative effort. No loosening of the teeth, no sponginess of the gums, no putrefactive fœtor, no sloughing of the soft parts, increased *but not disordered secretion.*" He and his school claim that Mercury causes a *pathological* condition of the mucous surfaces which Iris and its analogues does *not.* But this is an error. All increase of the functional activity of any organ or tissue beyond a normal state, is a pathological condition *more* or less.

The distinction between Mercury, Aurum, Nitric-acid, Sulphur, and Chlorate of Potash, and Iodine, Iodide of Potash, Podophyllin, Phytolacca, and especially *Iris*, is, that while the former are intense solvents of the living solids, giving rise to actual putrefactive destruction of the tissues, the latter are less intense and destructive in their action, never giving rise to those disorganizations caused by the former. Therefore as antidotes to Mercury, the Iodides of Potash correspond more to its ultimate effects, while the *Iris* and its congeners correspond to those cases of increased functional activity which only stops short of actual putrefactive disorganization.

No better proof of the feasibility of grouping the agents of our materia medica in a systematic manner is afforded than by a consideration of those remedies which naturally class themselves with *Cantharides.* In the treatment of nearly all renal and other affections of the urinary organs, we instinctively think of this remedy first, and then as naturally come upon Cannabis, Turpentine, Copavia, Cubebs, Uva-ursi, Apis, and similar analogous remedies. Why is this? There must be some reason for this order? Is it not because the primary effects, the starting point of action, of all these remedies is in the urinary organs? We know very well, that nearly all the pathogenetic symptoms and pathological changes caused by this group in the various and even remote parts of the body are secondary, and dependant on their primary action on the kidneys and its important function. All the important cerebral symptoms—the organic changes in the blood, the dropsies, inflammations, &c.—are secondary, not primary effects of these remedies.

These examples will suffice to give you some idea of the manner in which I would group and classify the remedies of our yet chaotic materia medica. There are two rules which may be taken as a guide in our attempts at drug-groupings. *First.* All drugs which have the same *starting point* in their action upon the living organism should be set down as remedial analogues. *Second.* All drugs presenting a physio-pathological resemblance in their action upon the living organism. Remedies of whose pathological effects we know nothing should only be classed temporarily, until such effects are ascertained. In grouping such remedies we must be guided by the pathogenetic symptoms, by which we may to a certain extent judge of its physio-pathological action.

There are certain diseases whose seat is in the central nervous system and its branches, or in the ganglionic system; diseases which may cause death, and yet leave behind no pathological changes to be detected by the most minute and accurate examination known at present to pathologists. So there are remedies whose toxical effects are similar in every respect. This class of remedies, which correspond to and are curative in the above-mentioned diseases, cannot of course be pathologically considered, but must in cover of such remedies depend upon symptomatic sensations alone, in the same manner that we must depend upon the symptoms of the patient in the diagnosis of their nervous disease.

If we take the published works of homœopathic writers as our guide in determining the progress of our system, we must look upon the Organon and Materia Medica of Hahnemann as marking the ingress of the *first* era; for in these two works are laid the two corner-stones upon which rest the homœopathic edifice,—viz., the law of similia, as the law of cure, and the pathogenetic effects of medicines, as the basis of a true materia medica. The disciples of Hahnemann up to the time of Teste only enlarged and improved upon these two discoveries.

About the time of the appearance of Teste's work in France, the Organon and Materia Medica of Hempel was published in America. These books undoubtedly mark the second era in the progress of homœopathy. I consider the Organon of Hempel as being one ot the most logical and profound works on the principles of homœopathic medicine which has been published since the time of Hahnemann, and its influence has and will be no less marked. But unfortunately, the Materia Medica of that learned author, like the Materia Medica of Teste, is *imperfect*. The latter attempted to classify our remedial agents, but failed, in a truly scientific point of view, because he took only pathogenetic and pathognomonic symptoms as his guide: and rendered still more imperfect from the loose, fanciful manner in which he selected his supposed analogues. The former, although his *groups of symptoms* are admirably arranged, and show at a glance the sphere of action of a remedy upon particular organs and tissues, does not present us with a classification of those remedies which produce *analogous groups of symptoms.* This is the one great fault of the otherwise splendid work of Hempel. Had he grouped his drugs with the same scientific precision that he has grouped his symptomatic indications, we should have possessed a materia medica as near perfection as we can hope for in this era of medical progress.

As the hatred of Hahnemann towards the allopathic school impelled him with a fierce desire to do away with all their received nomenclature of diseases, based upon supposed morbid conditions, so I fear the same passion has impelled Hempel and other writers upon the homœopathic materia medica to do away forever with the classification of remedial agents. But these impulses are unworthy of the scientific mind; because our opponents err in one direction, we should not err in the opposite. To homœopathy is given the great work of building up a truly scientific materia medica, and we should enter upon the task with minds divested of all prejudice and unworthy thoughts.

As an illustration of the great fault of Hempel's work, we will turn to any one of his remedies—*Belladonna*, for instance—and read that admirable resumé of the symptoms of the "*Cephalic Group.*" Now, suppose that the young physician has referred to this group for indications by which he may judge if it is proper to administer this remedy in a case of brain disease which he is treating, and suppose he does not find that the symptoms of the drug and the malady correspond,—what is he to do? Plainly, he must examine analogous medicines until he finds the specific for his patient. But as this and other materia medicas are arranged, this is quite a task, unless the physician is possessed of the results of much reading and experience in this branch of medicine. The analogues of Belladonna are scattered from one end to the other of two or more huge octavo volumes. Would it not have been better and more in accordance with scientific order, if Hempel had placed the analogues of Belladonna in one connected group, or better still, have placed the "cephalic groups" of such analogues in juxtaposition?

Having laid before you what I consider to be a scientific arrangement of our remedial analogues, based upon their known pathogenetic and pathological effects, I will proceed to consider that other requisite of an *ideal* materia medica—a *perfect drug proving.*

In the consideration of this matter, we are met at the threshold by the question: *How should a drug be proven?* I answer: In sufficient quantities to develop its specific effects. There are those who pretend to claim, that provings should only be made with the potencies, even to the thirtieth. With few exceptions, I cannot believe that such provings would be of any worth. Infinitesimal doses might and do bring out symptoms of a nervous character, but they cannot in a healthy person change a physiological condition, or produce a pathological state. For this reason I consider that material quantities should always be used for practical provings. A drug proving should be instituted upon persons of both sexes, of various ages, and diverse temperaments; also upon the lower animals, both *herbivorous* and *carnivorous.* This last proposition I consider to be of the first importance. In accidental provings—such as cases of fatal poisoning and the like—in the human species, we often have an opportunity to observe the extreme physiological and pathological effects of medicines; but these cases are often imperfect, because it is rare that death proceeded from the pure effects of the poison; its action is generally modified by antidotes, &c.

Again, "it is not probable, that, howsoever far a single man's devotion to medical science may often be carried, that a number of men will deliberately consent to poison themselves systematically for a long time, until their constitutions shall have become so thoroughly impregnated with the poisonous drug, that external or internal disorganizations must result from these alterations of the organic vitality." So says Hempel, in his latest and elaborate work, "The Science of

Homœopathy," in which he laments that the literal fulfillment of the rule to select drugs by the pathological conditions they cause is *impossible*. But there are organisms upon which we can experiment, and no false ideas of humanity should deter us from its accomplishment. In the allopathic school some of the most valuable discoveries in physiology and pathology have been made through this medium. To us belongs the vocation of perfecting a portion of materia medica by the same means. Teste takes this ground in the preface to his work, but it does not seem that he ever acted upon his own proposition.

To Dr. Curie, of France, belongs the honor, I believe, of inaugurating this new method of pathological provings in the homœopathic profession. In an interesting discussion, which took place last year in the Parisian Homœopathic Society, Dr. Curie claimed on behalf of Bryonia a real specific power over diphtheritic affections in general, on the ground of its pathogenetic property of forming *false membranes*. The Doctor then presented the tongue, trachea, and the lungs of a rabbit, to which he had administered Bryonia for eight months, at first giving 2 drops of tincture per day, and progressively increased to 250 drops per day. In this specimen a "firm pseudo-membranous tube lined the trachea, and on the one hand penetrated the second and third ramifications of the bronchia, and on the other lined the whole of the larynx." The whole of this case is of great interest, as showing the practical value of such experiments.

On the 2d of September, 1861, Dr. Curie read a paper before the Academy of Sciences of France, on the physiological properties of *Drosera*. In this paper it was stated, that in three experiments made with this remedy upon cats—one of which was killed in six weeks, and one in one year (the third was still alive)—the following symptoms and lesions were noticed:—"All three had diarrhœa at the commencement, and a very marked weakness of voice was observable after six weeks. In both cats killed, there were undoubted *tuberculous deposits in the lungs*, and very considerable enlargements of the *mesenteric glands*." Besides these, "it acted at the same time on the lymphatic system in general, thus presenting the analogy recognized in all ages between the tubercular affection and the lymphatic, not to say scrofulous temperament."

Relying upon the deductions to be drawn from these pathological provings of Bryonia and Drosera, Dr. Curie unhesitatingly gave these remedies in conditions similar to those they had produced. The result was a splendid triumph of the Law of Similia, as well as a substantiation of the importance of drug-provings, to an extreme extent, upon the healthy organism of the lower animals. Equally important, then, with our physiological provings of drugs upon the human organism are pathological provings upon the organisms of the brute creation.

The *first* point to be ascertained, in all provings, is the size of the requisite dose which shall set up an abnormal condition. In men this dose should be increased or decreased to the extent of keeping up sufficient action to give a complete picture of the pathogenesis of the drug, up to a point compatible with the safety of the prover. In animals the dose should be gradually increased until the death of the animal, either by other means, or by the toxic power of the drug alone.

The *second* point to observe in all true provings should be the *starting-point of the morbific influence of the drug.* A drug-proving is like a piece of harmonious musical composition. The key-note must be struck before the piece can be executed or understood. This starting-point in drug-action is the key-note to its pathogenesis. That once fixed and decided upon, we have no difficulty in understanding its effects upon the whole organism. The *starting*-point of the morbific influence of the Belladonna and Gelseminum is the brain, the former to *excite,* the latter to *depress.* The poisonous atoms of Nux-vomica first impinge upon the spinal cord, while the Cantharides strike its first blow upon the kidneys. Could we know the three essentials in the history of drug-action, we should possess an enviable and as yet unattainable knowledge. These essentials are: *First,* The organs or tissue for which the drug has a primary affinity. *Second,* The manner in which it affected or changed the physiological action of such organ or tissue; and *Third*, The *symptoms* evolved from such disturbed and abnormal action. Knowing these, we could group our remedies as *cerebral irritants*, *spinal irritants*, or adopt a plan somewhat like Rademacher's, naming certain drugs "hepatic remedies," other "spinal remedies," and so on classing them according to their natural specific affinities.

Another requisite in a drug-proving is that the *natural evolution of symptoms, &c., be observed.* Two or more tissues or organs of the body may be affected at the same time, or the affection of one may follow rapidly or slowly upon the disease of another. The same is the case in natural diseases. Here we are impelled to ask the question: What is a specific remedy? The answer has often been: Any drug which possesses the power of always curing a particular disease, or form of disease. But a better answer can be given, and more in accordance with the spirit of the Law of Similia. A specific remedy is one which will cause in the living organism a physiological and pathological state similar to any given disease. It must have the same starting-point in its action; must primarily affect the same organs or tissues; must similarly change the action of such organs and tissues, and, finally, must cause similar pains, sensations, &c.

There are some who, at this day, find their supposed specific by noting down the symptoms of the patient, beginning at the head and ending at the heels, then arbitrarily "*covering*" these by symptoms similarly selected from our ill-arranged and faulty Materia Medica. But I trust that this absurd and unscientific practice will soon become obsolete. It must be repugnant to any rational and scientific mind. I cannot believe it was the manner Hahnemann intended to be pursued by his followers. By such a course of drug-selecting, the primary and secondary symptoms are all confounded, and *worse*, trivial ones are of as much importance as the characteristic. For the symptoms of a case of Meningitis, Phos.-ac., or Rhus. might be selected as well as Belladonna or Opium. It is this miserable plan which has brought so much odium upon our system.

The final arrangement of a systematic drug-proving is a work of much moment. Whether we should arrange them strictly upon the results of their joint physiological and pathological action, as regards organs and tissues; or whether we shall follow the plan adopted by Hempel in his Lectures on Materia Medica, may be a disputed question. Neither plan can be pronounced perfect or satisfactory. I am sanguine that my colleagues in the profession will each strive to aid in the great work which is to be done. No one, but can contribute to the furtherance of this object.

Next to the unmitigated *quacks*, a drone in the Homœopathic profession is the most unworthy. Content to live upon the results of the mental labor of their industrious brethren, and to profit by the toil of our great founder and his disciples, they have no ambition to repay such toil by a grateful remuneration. It is sad to be surrounded by such men, to have for one's colleagues those who have no sympathy with one's aspirations towards medical perfection. Yet such is the fate of many of our best minds. But the saddest of all is to know that these same lazy drones look upon their working colleagues with envy and low jealousy.

Article XVI.—*Diphtheria*. Read before the Illinois Homœopathic Medical Association. By D. A. Colton, M.D., of Chicago, Ill.

Having been unfortunate in the management of several cases of diphtheria, I was led to observe the disease and treatment with more than ordinary care, that I might, if possible, discover the cause of failure, and mark out for myself in the future a somewhat different course of treatment, which to my mind, at least, would give hope of success. I speak of the cause of failure and hope of success in no inconsiderate way, for neither of the cases referred to—three in number—presented symptoms which appeared necessarily fatal. They each terminated in about ten days, and had symptoms much alike. From the onset each had the characteristic patches upon the tonsils and pharynx, of an ash or dirty cream color. In neither case was there more than ordinary fetor of the breath, and in only one any sanious discharge from the nostrils. The appetite was amply sufficient for patients with continued fever. The urine was voided freely, and very little if any diminished in quantity; while the bowels, though rather torpid than otherwise, moved about every third day, and the stools were natural in appearance. The pulse was quick and frequent, as indeed in all cases of diphtheria, being at first 110 to 120 beats per minute, and increasing in number until the stage of collapse occurred. The hoarseness was a marked symptom, and was either attended with loss of voice from the commencement, or from being slight at the beginning, gradually increased, until a short time previous to death, the aphonia was complete. As was indicated by this more or less gradual loss of voice, the scattered patches of false membrane coalesced and extended down the larynx and bronchi, and the dyspnœa, from a mere stertor while sleeping, became greater and greater, either gradually or in paroxysms, until the little sufferer appeared to sink from exhaustion in this effort. For the first five or six days, or until symptoms which threatened a fatal termination in collapse or suffocation occurred, Aconite, Belladonna, Proto-iodide of Mercury, Kali-bichromatum, Bromine, and Arsenicum were chiefly relied upon. Upon the occurrence of the symptoms referred to, Spongia, Phosphorus, Rhus, Ipecac., Hepar-sulphur, Stibium, and China were administered, mainly as intercurrents, as they were indicated. The Iod. of Merc. 1st, in water, was administered in each case, with only temporary intermission from first to last. After the first thirty-six or forty-eight hours, the Kali-bichrom. 1st, prepared in the same way as the Mercurius, was given persistently in alternation with the latter remedy. A higher potency of these was administered in conjunction with the lower for a portion of the time. For the prostration China and Arsenicum 3, were prescribed in the first case; while in the two latter cases, after the use of Rhus-tox. 3d, and the remedies just named, some fifteen drops of the China mother tincture were added to a little wine and water, and of this mixture teaspoonful doses were given every one or two hours. In the first case the lamented Dr. Seymour was called in counsel, in the others Dr. A. E. Small.

I have given these cases somewhat in detail, with no expectation of enlightening the profession by their rehearsal. I simply wish to present them that I may not seem impertinent in the remarks which follow. The cases were such as, for the first few days, would have been called hopeful ones, and the treatment not unpopular by the profession. Disappointment under such circumstances, even with so small a number, was sufficient to excite inquiry, and produce some change in one's ideas of the nature and treatment of this disease. In the review of it, I may say, the premonitory symptoms and sequelæ are important and indicative of its nature. The former are well known to be very insidious, as the child may have shown only a little weakness in moving about previous to the onset of the disease in its most distinctive form. The sequelæ are significant, as the patient recovers very slowly—showing great want of innervation, of the use of the voluntary muscles, and power of locomotion. I have known weeks and even months to elapse before the patient could walk with firmness, and yet the disease abated its force in some five or six days, and during its course it did not appear to be very severe. Incipient or absolute paralysis is known to have occurred in quite a large number of cases. This shows a marked affection of the nervous system, especially of the nervous centres. The cachectic condition into which the patient is thrown by this disease is shown by other sequelæ than those of a paralytic character, such as glandular affections, otorrhœa, ozœna, impaired vision and hearing, chronic hoarseness, pains in the limbs, &c.,—all indicating a dangerous disease, which is constitutional and general, as well as local, in its type and character.

Of the precise pathological changes which take place in the inception and course of this malady we are not as yet well informed. That there is great want of proper nutrition is admitted by all professional observers. But this is the case with so many other affections, less grave in their nature, that in diphtheria it must be taken as a therapeutic indication, rather than particular evidence of specific pathological changes. The false membrane has elicited much attention, and perhaps has been given too much importance. This exudation thrown out or abstracted from the blood, and albuminous in character, is not sufficient in quantity to create any great loss to the system, or decided constitutional derangement by its abstraction. It is only when the exudation is taken as an indication that the albuminous material is in excess in the blood, and showing by this excess a want of proper conversion into fibrin, that we can give it much importance in connection with our present inquiry. Assume that there is an excess of albuminous plasma, and unappropriated by reason of an arrest in its proper physiological change—the change necessary to render it subservient to the nutritive functions—and still other obstacles present in the way of a satisfactory explication. What if in our rendering of this disease we approximate that so popular with us in our translation of intermittent fever, and say that its exciting cause is a specific poison malarious or not, that finds access to individuals through the atmosphere as a medium? To my mind, this is a hypothesis which attaches some degree of plausibility for its support; and it is in no way weakened by still further supposing that the baneful influence spoken of, primarily affects the constituents and properties of the blood, and secondarily the nervous system and the tissues; or that, in the first place, it is felt by the nervous ganglia, and then by the blood and reparative processes. And this view is further supported by some of the symptoms observed during the course of this malady, to which we may presently refer. But we are not left as a basis for our treatment to rely upon hypothesis alone. Regarding the disease as constitutional, and we have symptoms, separate or in groups, which, if duly considered, lead us to a classification or use of remedies which is at once rational or quite reliable, and to these we will now direct attention.

Having general indications and local symptoms to combat in the treatment of diphtheria, we naturally classify our remedies into general and local, and those applicable to both the general and local conditions. Among the first, we will name Aconite, Rhus-tox., Arsenicum, China, Conium, Ferrum, Veratrum-alb., and Carbo-vegetabilis; among the second, Apis-mellifica, Belladonna, Bromine, Ipecac, Phosphorus, Spongia and Stibium; of the third, Baptisia-tinctoria, Kali-bichromicum, Kali-hydroid, Lachesis and Mercurius-iod.

Aconite, from its known effects in cases of poisoning, and the evidence of provers, is shown to be homœopathic to this malady, at least, as an intercurrent, even after the first or inflammatory symptoms have subsided. Aconite produces derangement in the organic functions, the capillary circulation, and the nervous centres at the same time, and these derangements are not unlike many of those general symptoms observed in an advanced stage of diphtheria.

Rhus-tox., is suited to a predominance of the symptoms which correspond to those observed during the course of typhus, and prominent among these is the tendency to dozing or stupor without rest.

Arsenicum-alb., is indicated in a somewhat opposite condition to that for Rhus; when the patient suffers from restlessness, erethism, thirst, &c.

Conium-mac., comes into appropriate use when there is sopor and deficient circulation in the venous capillaries. It is also indicated when there is incessant coughing and excitement of the respiratory passages.

Ferrum in its different preparations is suited to emaciated, anæmic patients, those who have previously been of a cachectic habit or in an atonic condition.

China to patients with whom there has not been a previous abuse of this drug, is *apropos* when the paroxysms of difficult breathing, coughing or spells of sinking or threatened collapse are regularly periodical, also when there are discharges from the nasal passages.

Veratrum-album is preëminently fitting when the hoarseness, cough and difficulty of breathing increase by paroxysms, regularly or not, and if during such paroxysms, the hurried and feeble pulse and other general appearances of anxiety, distress, &c., similate the picture presented by a congestive chill. The Veratrum administered at short intervals in alternation with another appropriate remedy, I have known in such cases, to give the disease a shock from which it never rallied.

Apis-mellifica, for local symptoms appears to be indicated by much irritation of the throat and air-passages, accompanied by suffocative cough, and succeeded by frothy mucous or muco-purulent collections in the larynx and bronchial tubes. Apis may have some important bearing upon this disease in a general way, but at present we are not fully advised concerning it.

Bromine, for the typhoid symptoms and prostration of the nervous system, which are a part of this disease, we must confess has been rather disappointing under our observation. It appears to be homœopathic to the throat affection when attended with symptoms of spasmodic croup, with oppression of the chest and suffocative breathing. Hence its use when the disease has made some progress.

Phosphorus, *Spongia*, *Ipecac.*, *Belladonna*, and *Stibium*, are classed among those which have mainly a local bearing in diphtheria. This classification may be criticised, first, by stating that some of these remedies do not have a primary, and decided influence upon the throat affection, but rather a modifying one secondarily, by means of a change in the abnormal condition of the air-passages below, or of the system at large. And further, since Phosphorus in poisonous doses, has a tendency to produce paralysis of the spinal portion of the nervous system, in some cases, we freely admit that in certain instances, it might be prescribed with the expectation of its meeting the general morbid influences in this disease. Spongia also, may be subject to a like objection, but since diphtheria is such a grave disease as to require the use of those remedies styled active, and which, in their primary action, are homœopathic to the general downward tendencies and totality of the symptoms, we naturally hold those subordinate that are faulty in these particulars. Admitting this, let us now look at some of those which have both a local and general bearing.

The *Mercurius-iod.* is both a local and general remedy, and in the use of a combination of a very low attenuation, the first with a higher, the sixth or twelfth, in water, there are reasons for being rather persistent. But the Mercurius-iod., in its poisonous and pathogenetic effects, does not make so complete and striking a picture of diphtheria as to authorize us in relying upon it, if the disease does not soon yield under its administration. For the primary effects of this preparation, we look to the organic functions, the chylo-poietic viscera, and the glandular system; for the secondary, to the nerve-forces and the blood.

Lachesis, if not at first, is applicable to an advanced stage of the disease, when there are appearances of disorganization of the blood, and convulsions threaten. For these and the important sequelæ, so common during convalescence from this affection, Lachesis cannot be over-estimated.

Baptisia-tinctoria is an analogue of Rhus, in its general influence, while it is pathogenetic to that irritation or inflammation of the mucous membrane of the throat, which would not be unfavorable to the occurrence of an exudation there. A partial proving of this drug has convinced us of the truth of the latter statement.

Kali-hydriod., as is well known, has a powerful influence upon the glottis, the larynx, and the bronchia, when difficulty of breathing is apparently produced by spasms of these parts, and when this condition is or is not soon followed by collections of a mucous or muco-purulent character in them. This remedy must have some considerable effect upon the constitutional symptoms, but we cannot as yet define them satisfactorily to ourselves.

Kali-bichromatum is a medicine which meets both sets of symptoms in their proper order, according to our view of this disease. While in poisonous doses this drug causes great gastric and abdominal disturbance, at the same time, and in a degree independent of the irritation along the alimentary canal, it produces serious depression of the vital powers, such as is observed in diphtheria. Some of these symptoms are, excessive thirst, frequent micturition, difficult breathing, quick, small, intermitting pulse, cold surface, stupor, and crediting a part of these symptoms as due to the same local troubles, we have those left that are more certain evidences of nervous exhaustion. And take this insidious depression and exhaustion in connection with the feebleness and paralysis of the extremities in persons and animals poisoned, and we have the general effects of Kali-bichrom. and the general symptoms in diphtheria as nearly synonymous. After repeated doses of the Kali as a poison, the local affection of the throat and air-passages begin to develop, either in redness, swelling, painfulness, and finally ulceration of the tonsils and uvula, or a feeling of scraping in the throat, or cough with ropy muco-purulent expectoration. On a post-mortem examination the glottis, larynx, trachea, and bronchi were found injected, or in some cases covered with a dirty white covering, like false membrane; and in others coagulated masses attached to the mucous membrane, especially in the bronchia. This we see so prominently simulates the affection in diphtheria, that Kali-bichrom. should receive our careful attention in the treatment of it.

In this brief paper we have endeavored to give our views of the therapeutic properties of the remedies considered, and the indications for them, so far as they relate to diphtheria. But, since diphtheria is a disease that soon runs its course, we must continually keep in view, and act with reference to the importance of sustaining the vital powers, and of giving such aid as will enable the system to hold out under the insidious and powerful influence of the poison. For this purpose we must not be afraid to use low attenuations or appreciable doses, especially if, as indicated, they be of Merc.-iod., China, Veratrum, Spongia, Conium, Kali-hydriodicum, or Apis. The Kali-bichrom. may be given as low as the first decimal attenuation, and repeated as often as once in fifteen minutes.

Bryonia-alb., said to have caused a false membrane similar to that in diphtheria, as proven by the experiments of M. Curie, did not produce the attendant conditions necessary to make it, in our opinion, a very attractive remedy.

Article XVII.—*Physiological Dietetics.—The Distinction between Food and Medicines.* Read before the Illinois Homœopathic Medical Association, at its Eighth Annual Meeting, Chicago, May 22d, 1862. By R. Ludlam, M.D.

As they are related to the human organism, all known substances may be divided into two classes, viz., nutrients and non-nutrients. With the one class the relation is the more intimate because of modelling processes which are constantly going on within that organism, since it supplies organizable elements for the preservation of *forms*. The members of the other general group are non-assimilable, excepting as they add to or modify the animal and organic forces of the economy. Nutrients, if rightly appropriated, are to be regarded as material *bona-fide* contributions towards structural growth and development. The non-nutrients are merely the vehicles for those immaterial and imponderable agencies which, as they are applied, have either a toxical or curative influence over the life-actions.

The distinction we have made is an important one. The lines separating food and medicines have not been drawn with sufficient clearness. Nutrients have a definite line of action, and so also have the non-nutrients. Introduced into the human organism, each has its sphere of duty. And as a rule they are not convertible,—certainly not within the body. Each particle of the aliment which is to be vivified and organized, is labelled so to speak, like one's car-ticket, "not transferable." It does not minister directly to the increase of the organic forces, but is itself operated upon by them. Neither a man's physical, moral, nor yet his intellectual strength, are to be measured by his size merely, but by the available power resident in his body, whether it be lean or portly. Shakespeare's "little, round, fat, oily man of God" for a minister, is not always the most efficient member of the cloth, nor would the obese Lambert rival the wiry Winship as an athlete.

The vigorous exercise of a gymnast develops his muscles and his appetite at the same time. The former result comes of a more active and thorough operation of the nutritive and assimilative forces; the latter from the increased physiological detritus of tissue, demanding an increased supply of material for purposes of repair. It is thus that the formative forces of the organism act and react with those which are dynamical and more demonstrative.

This, therefore, is the physiological distinction between food and medicine, which the practical physician will always observe, *id est*, that nutrients are assimilated into, and concern more intimately, the *forms* which characterize the living structures; while each of the non-nutrients supplies a variety of *force* to the organism which, varying in degree and quality, as well as in the time and method of its application, may be either toxical or remedial. In a literal sense there are no nutrient remedies. One might feed a patient for an indefinite period upon the attenuations, but the principal result would be to attenuate *him!* On the contrary, there is nothing of healing virtue *per se*, in the best chosen aliment. A rigid diet is sometimes, not very frequently, perhaps, a wholesome expedient, and indirectly efficacious because it rids the organism of a source of increased embarassment, thus giving it an opportunity to react against the perturbing influences which have been brought to bear upon it. It may sometimes be serviceable also in permitting remedies to regulate more directly the play of the operative forces which have been disordered. But it does not relate to, or affect in a primary way, the therapeutical processes by which health is restored. At the same time medicines are not to be regarded as sovereign for the relief of the earlier and the more remote consequences of diseased action.

The idea finds utterance in the fact that it is absurd for one claiming a familiarity with the laws of the human organism, of a rational physiology, to be attached to either agency as an exclusive means of cure. We might with as much propriety ignore the claims of the cerebro-spinal system to our recognition and study, upon the ground that because there is a ganglionic or organic system of nerves, we do not need to know of a second and similar apparatus, as to exalt a pure expectancy upon the one hand, or any method of drugging whatever upon the other, to the rank of a specific and universal method of cure. Such one-sided opinions have always been the bane of medical science.

Take, as an example, the two schools of physiologists, the chemists, and the vitalists. Because zoo-chemistry is competent to explain the more crude and tangible conditions of the life-actions, the chemists insist that it must be capable of unravelling the subtler details of function belonging to the inner existence. With this class, all is a species of refined chemistry. But the vitalists are more transcendental, and refer the phenomena of functional activity in our bodies to the play of those intangible forces which are more ethereal and evanescent. With this school of philosophers, the most varied processes are believed to result from the same moving power or spirit, the *animus* of the organism. They will strain a point to demonstrate, if it were possible, that the soul is the source of animal heat (!) and make themselves to appear equally ridiculous in ignoring the fact, that organic chemistry can afford any plausible explanation whatever of the phenomena of human physiology. The truth lies between the two. Both are wrong, because both are too exclusive. "Not a step can the physiologist advance without the assistance of the chemist; but he must employ chemistry as a means of *exploration*, not of *deduction*—as a pillar, not a pinnacle—an instrument, not an aim." (Lewes.)

Precisely so is it with those physicians who insist that our attenuations are the only desiderata for the sick chamber; and with such also as having become skeptical of therapeutics, have determined to place their reliance alone upon diet, hygiene and the like. Both are out of the way, and only travel farther and farther from the goal the more radical they become.

It is with a view to illustrate the harmony of operation in these two sciences made practical, to show that they are by no means incompatible, that we have been induced to offer the present paper. In what follows we propose to discuss the subject of nutrients in their physiological and pathological, rather than in their chemical relations to the organism. At some future time we may set forth our peculiar views concerning the therapeutical spheres and *modus operandi* of the non-nutrients.

NUTRIENTS.

Permit us to recommend a somewhat original and more available classification of these substances than has hitherto been proposed. Nutrients are either *direct* or *indirect*.

1. Direct Nutrients.—This class includes all the albumenoid or proteinaceous bodies, whether derived from vegetables or animals. They are the organic substances proper, the nitrogenized, or histogenetic elements, as they are sometimes called. Chemistry has discovered in them the four essential

elements, carbon, oxygen, hydrogen and nitrogen, with a trace of sulphur and phosphorus, but because they are of organic origin and adapted to the ever-varying necessities of the human body, in nourishing the blood and bone, the brain and muscle, and the remaining tissues, the most careful analysis has failed to detect in them a uniform chemical composition. In this respect they differ from all other nutrients. As found in the textures of the body, they have undergone a change which has fitted them to become an integral part thereof. The albumen of the liquor sanguinis is not identical with that which has been organized into neurine, any more than the crassamentum of the blood-current is composed of *bona-fide* muscular fibre. In each example of their organization, these elements, albumen, fibrine and casein, indicate a progressive metamorphosis which initiates them into the more intimate anatomy of the bodily structures. Each of these principles, therefore, exists in the body under two separate forms, the soluble and the insoluble, the organizable and the organized. And there is no retrograde metamorphosis, which shall restore them to their original state, as found in the blood-plasma before the process of construction has commenced. The only means of outlet for this class of elements from the system is their physiological waste or moulting and final discharge through the various excretions; unless indeed, we include the pathological processes resulting in suppuration, ulceration and mortification.

The functional use, if so we may term it, of the albumenoid substances is simply to minister under proper conditions to the textural repairs of the organism. They represent the bricks and mortar, the plastic material, from which the more important parts of the building are to be constructed. But we must not forget that, while intimately related to resulting forms, they are not endowed with an innate power of organization. Like true building materials, they must be moulded and operated upon by other and specific forces, or nutrition will prove a failure,—a fact which has its illustration in the fibrillation of the blood-clots, as well as in pseudo-membranous formations, where the resulting product is an abortion of structure. The component cells of each particular tissue contain and impress the modelling forces which belong to special histogeny, and are the constructors of each particular textural compartment in it. The cell-wall, or periplast, is albuminous, and, with its contained fluid, nuclei and nucleoli, represents an organ which is set apart to the double function of structural repair and reproduction. From an available plasma, and in conformity to a specific type and form, it is to re-construct, re-model and re-produce all the myriad details of microscopical anatomy.

The nutrition of the various tissues may be in excess or deficiency. In a case of tabes mesenterica in a child, for example, the more prominent symptom is a decided atrophy, marasmus, or wasting away of the flesh. The little patient may eat inordinately, but still he remains a mere skeleton. The most nourishing aliment appears to be dissolved somewhere in the course of the digestive tract, but it fails to minister to the repair of the nitrogenized tissues. And why is this? Simply because its absorption into the lacteals, or into the portal system, or its more intimate assimilation into the structures, or both, is disordered. If the mesenteric glands fail to establish those changes in the albuminous and other peptones brought to them which indicate a step forward in the organizing processes peculiar to this department of nutrition, the histogenetic function is necessarily disordered. Or, if the little capillary rills continue to irrigate the tissues as in health, bringing the most appropriate food for the supply of their morphological and organic necessities, and still they remain impoverished, and emaciate, we infer that the more intimate function of assimilation, and not that of absorption merely, is at fault. The aliment is the proper one. It has been digested, absorbed and emptied into the circulation, carried to the hungry tissues, the actual seat of the appetite, and yet their repair is not effected. The marasmus is due to the fact that the elements of growth are not rightly appropriated. The drain is a serious one, for it may sap and undermine the life-processes, so that, by and bye, the textures shall come to resemble the worm-eaten timbers of an old ricketty edifice.

In the hypertrophy of an organ the formative forces are too active, cell-growth and development have reached their maximum. The nutritive resources are spent in a profligate manner upon the mechanism itself, it may be at the expense of its healthy function. Progressive assimilation has gone on uninterruptedly, but prodigally. The plastic material furnished has been greedily appropriated, and those little tissue-builders, the cells, have been as busy as bees, that nothing which they could work into the structures should be left out. Here, then, are the two extremes of histogenetic function, neither of which are to be remedied by nutrients alone, but first and foremost by a means which shall be competent to regulate the formative forces of the economy, and subsequently, by supplying an aliment which shall be acted upon and assimilated by them.

Direct nutrients, therefore, include all that class of proximate principles which supply the nitrogenized elements of the food. They are the material from which the living tissues, and in chief part, the liquor sanguinis and other organizable fluids are formed. Without their presence the tissue-repairs which are so significant of healthy life-action could not be perpetuated. They rebuild the solids, renewing the growth and development of organic forms and compounds through the agency of specific modelling forces, which are resident, not in themselves, but in the tissue-germs, or cells, to which they are brought by the aid of absorption and of the circulation.

2. Indirect Nutrients.—This variety of Nutrients may be divided into three classes, *viz.*

a. Those whose chemical identity is preserved in the organism;

b. Those which, in the body, undergo some chemical transformation; and

c. Those which act by preventing an excessive tissue-metamorphosis.

a. The first of these orders includes water, the chlorides of Potassium and Sodium, the alkaline phosphates and carbonates of Calcium, Sodium, Potassium, and Magnesium. They may be either of organic or of inorganic origin, but are themselves of an inorganic nature. They have a definite chemical composition which, upon the most accurate analysis, is found to be the same, whether in the body or out of it.

In the synthesis of the animal tissues, we discover them to be of service in one of two ways, viz,—catalytically, or mechanically. The former method of their union and use has an illustration in the presence of Sulphur and Phosphorus in the nitrogenized tissues; the latter, in the arrangement and deposit of compounds of lime in the bones, and of the carbonate of potassa in the muscles. Their assimilation is only approximative, and, with the exception of the Sulphur and Phosphorus already spoken of, they are not discovered in excess in any of the more highly vitalized tissues. We find them, however, in the osseous, the cartilaginous, and the ligamentous structures. Circulating in the blood-current, they represent the more crude *materiel*, or stock-in-trade of the organism. The tissues belonging to a higher grade of organization are but indirectly related to them. Thus, for example, all animal tissues of whatever variety, are hygroscopic, and from its liberal supply by osmosis, water, therefore, becomes in some sort a proximate principle, necessary to their formation. It constitutes by weight about ninety per-cent of the entire body.

The chloride of potassium abounds in the blood-cells, and the same salt of sodium in the blood-serum. Indeed these two compounds have been discovered in all the tissues and fluids of the body, excepting only the enamel of the teeth; and really fulfil such important subordinate functions in the economy that, like the hydro-carbon furnished by the great sugar refinery, the liver, their production must be placed beyond a peradventure, so that mere caprice of appetite or diet shall not occasion disorder. The chloride of sodium is of as incalculable service in holding in solution the albumen, as ammonia is in preventing the coagulation of the fibrin of the blood-current. It supplies a chemical condition of absorption and of exudation, whereby the functions of secretion and of excretion may be properly performed. It ministers to the election or separation of those elements which are to be vitalized from such as are innutritious and worthless.

The salts of lime, which contribute to the firmness and solidity of the skeleton, are deposited mechanically in the osseous cells of the bony fabric. Chossat produced artificial rickets in certain inferior animals by restricting them to food which contained little or no phosphate of lime. The form of fragillites ossium, common to old people, in whom the neck of the femur is so often and so easily fractured within the capsular ligament, is due to an abnormal excess of the earthy salts over the animal constituents of this bone.

Without specifying those farther physiological details concerning this department of zoo-chemistry, already familiar to the Members, permit me to direct your attention to a significant fact pertaining to this class of "principles," which appears to have been almost entirely overlooked by medical writers. I allude to their dual character and capacity as indirect nutrients and as remedies, when prepared and introduced into the organism under different forms and conditions. In crude substance the chloride of sodium, taken with our food, is a proximate principle, capable of becoming a part of the typical solids and fluids of the body; but dynamized, or triturated and administered in the form of Natrum-muriaticum, it is found to have a curative sphere which is altogether foreign to it as a simple condiment. Excepting water only, the same is true of every other member of this class of indirect nutrients. And so also of other substances, not enumerated in the foregoing catalogue, as carbon, iron, and silica. Whether they will prove nutrient or remedial, will depend entirely upon the form in which they are introduced into the organism.

It is just here that we shall discover the line which separates food from medicines. This is a great desideratum among medical men, as is proven by the frequent attempts and failures to fix upon its precise location. Upon this subject Dr. Chambers, in his work on Digestion and its Derangements, says: "When instinctively or rationally they are taken by a body in health, with the intention of keeping up that health, they are FOODS; when administered to a sickly body—that is one whose physiological actions are inconvenient to the individual—with the intention of restoring health, they are MEDICINES. Whether an article is food or medicine depends entirely on the intention, and on nothing else."

In this extract nothing is said of the dynamization of these principles, but we are expressly informed that the will of the giver is to determine whether they shall act as food or as medicines! There is no recognition of the fact that this is the more prominent class of substances which do not undergo some manifest chemical or vital change when introduced into the living organism, and that of necessity they must be more reliable as remedial agents than either the histogenetic or the calorifacient principles contained in the food.

Dumas determined long ago, and more modern chemists endorse the view, that the manifestation of peculiar properties by different bodies depends not on the nature of the atoms, but on the mode of their arrangement. Here then is the key to the almost marvellous virtues of dynamized matter. By a simple mechanical means which so modifies the atomic arrangement of particles in the carbonate of lime, for example, that substance is changed from a crude nutrient to a remedy, the Calcarea-carbonica, which possesses a wide range of action and a most wonderful efficacy. As common chalk, it may be eaten in considerable amount without causing any manifest derangement of system. If not assimilated by the nutritive forces into one or another of the less vitalized textures, it finds its way out of the body through the emunctories. But, change the molecular arrangement of its particles by mechanical subdivision, as the mercury is changed in the blue mass, or the fat globules of the food are changed into globulets, or even into Gulliver's molecular base, by intestinal succussion, and new properties are eliminated which indicate a range of curative action. And, strangely enough, when so prepared, we find there is such a complete alteration in its properties that the Calcarea-carbonica, once a nutrient and ordained like all its class to be fashioned or moulded, operated upon by the modelling force of the cell, by this new arrangement of its atoms, has acquired an entirely new relation to histogenetic processes. *Now* it may modify these same forces when they are disordered. It has become possessed of a *therapeutical* relation to nutrition. Administered in the Tabes-mesenterica, it well-nigh deserves the title of "specific," because of its peculiarly pleasant and satisfactory action in aid of the progressive assimilation of the plasma. It ministers to tissue-repairs, not by supplying material for the growth of the atrophied structures, but by modifying, qualifying, and perhaps regulating, the operative forces which are in charge of this department of organized life. Just as, by transmission through the cow, the small-pox virus becomes a preventive of that loathsome disease in the human species, so by a voluntary means, and not a mere intention only, are we enabled to transform this class of nutrients into remedies. Nor is this principle of duality of action, as nutrients or as remedies, peculiar to the Calcarea-carbonica and its congeners. Berzelius taught that there are few elements whose properties are not completely altered when the conditions which they have assumed are changed.

b. The second division of this class includes those principles which, although they are exclusively of organic origin, are nevertheless but slightly organizable. These are the non-nitrogenized substances, starch, the various sugars, and fats or oils. They have a definite chemical composition, and consist of the three essential elements, carbon, hydrogen, and oxygen. When hydrogen and oxygen exist in equal proportions in any one of these proximate principles, we have a carbo-hydrate,—as starch and sugar; otherwise the chemical union of these gases with the carbon produces the hydro-carbons, as the oiurvas fats and oils. For this reason the one class is inflammable while the other is not. Both are believed to contribute indirectly to the activity of the nutritive processes by ministering to one of its essential conditions—the maintenance of a proper animal temperature.

The idea thus formulated by Dr. Thompson, the founder of a once famous medical sect, that "heat is life and cold is death," is, with certain qualifications, a better physiological than a therapeutical maxim. A temperature in the body of 98° to 102° F., is found to be a necessary requisite of the life-actions. Not only are the more tangible and familiar functions of digestion, respiration and the circulation directly interested in calorification, but absorption also, and the more intimate nutrition of the tissues by osmosis through their myriad little periplasts, not to speak of innervation, animal and organic, or of those intellectual functions which personate the presiding genius of the whole.

Heat represents one of those chemical conditions which constitute a point of departure and return in the arc or circle of organization. It certainly supplies a chief source of the mechanical, or dynamical phenomena of life. If excessive, it implies danger from a too rapid detritus of tissue, and a too prodigal play of the operative forces of the economy. If deficient for any considerable time, that the organic resources are at a low ebb, and life-functions and phenomena imperilled thereby. Not that all pathological states depend for a primary cause upon a disorder of calorification, evidenced by what is familiarly termed a fever, or its opposite; but that, as fever has been defined to consist in a general perturbation of function, so we find that this particular function never fails to be implicated in the disordered action.

The oxidation of this class of proximate principles, as introduced along with the food, is regarded as an important source of animal heat, and is believed to supply a very necessary condition of its development. When subjected to the influence of the digestive process, each of the aforesaid elements undergoes an early and decided change in chemical character. Each loses its identity; the starch by the action of the salivary and pancreatic fluids upon it, is converted into a species of sugar; the sugar into lactic acid—thus furnishing to the blood a solvent for the phosphate of lime, and the acid which, with the alkaline bases, is to form the lactates; and the fats or oils, by oxidation, into so many equivalents of caloric, or, by mechanical deposition into the tissues, into adipocea. They minister indirectly to the morphological interests by regulating one of the more vital conditions of assimilation—*viz.*, the maintenance of that degree of temperature which facilitates the absorption and ready appropriation of a proper aliment. Their use is none the less important because it is a subordinate one,—none the less nutritious for furnishing fuel-food, and not direct tissue-material, capable of being transmuted into *bona-fide* flesh and blood.

But more modern physiologists insist that Liebig's doctrines, concerning the non-nitrogenized constituents of the blood, that "they take no direct share by their elements in the formation of organs, and have no vital properties," are not tenable. Fats and salts are necessary, say they, to the formation of a cell, and if of a single cell, then of fibres also. They thus claim that these elements are not the mere accessories of organization, but essential requisites, each and all of them, to the formation of a healthy plasma,—the concentrated solution of all the bodily tissues, and that they are tissue-makers as well as heat-producers.

Such a view authorizes the classification of the members of this group, and especially of the oily substances, among the proximate principles of organic life. And the theory finds a confirmation in the manner in which the cod's liver oil and other fatty nutrients are disposed of in the body. Prescribed for the relief of the emaciation of phthisical patients, or for the fattening up of those who suffer an atrophy of tissue from other causes, and in other diseases, as the Germans give the dog's fat in marasmus, they will sometimes increase the weight and plumpness of the individual in a very considerable degree. No one, however, claims for them the possession of any proper remedial virtues, but simply that they furnish the materials requisite to the normal development of some of the bodily textures.

c. Thirdly, We have those substances which nourish indirectly by preventing an excessive tissue-metamorphosis. The more prominent members of this class are alcohol, tea, and coffee. It is but recently that the true physiological sphere of action of these substances begins to be understood. First they were classed as *stimulants*, and viewed in the light of remedial agents, possessed of curative virtues, as Opium and other narcotics. More recently they are spoken of as *calorifacients*,—supporters of combustion. The oxidizable properties of alcohol within the body were supposed to be the same in kind and degree with its inflammable properties in the chemist's laboratory. If spirit would burn readily and almost spontaneously in the test lamp, why should it not lighten up the darkened avenues of the blood-tide?

Furthermore, certain phenomena signifying an increased animal temperature, are known to be manifested directly after its administration, and since, according to the Liebigian doctrine, such a result could only arise from combustion, the case seemed a plain one, that alcohol was a carbonaceous substance especially useful in aid of the function of calorification.

What was true in explanation of the *modus operandi* of alcohol in the body, was believed also to afford the true key to the effects of tea and coffee upon the system. No one could properly claim for these substances that they ministered directly to tissue-repairs. Each was thought to be a more or less prompt and decided member of the calorifacient class, which by combustion was decomposed within the body and found exit therefrom at the pulmonary mucous membrane, in the form of carbonic acid gas and watery vapor. Berzelius and Müller deny that alcohol ever finds its way as such into the urine.

But, in its turn, this view also is exploded by the researches of more recent and satisfactory explorers. Alcohol and its congeners are found to differ from all the proper alimentary substances with which we are acquainted. There is not one among the real alimentary "principles" which we have enumerated that escapes the system unchanged, excepting these. We are, of course, speaking of a healthy state of the organism. Albumen may, indeed, filter away through the tubular septa of the kidneys in albumenuria; and sugar through more than a single emunctory surface in diabetes, but, nevertheless, the rule holds good that alcohol is the only substance not of inorganic origin, which is expelled unchanged from the system by means of the excretory processes.

Drs. Ogston and Percy have demonstrated beyond a doubt that alcohol is neither assimilated nor consumed in the body. They discovered it under its identical form, and possessed of its identical chemical properties, in the substance especially of the brain and liver, upon which it fastens by a powerful "elective affinity," and by which tissues it had to be separated from the blood; and also that after it is taken, the various emunctories are continually engaged in its elimination. This elimination was found to be a progressive one, and to be carried on more or less actively through the three great excretory surfaces:—the pulmonary mucous membrane, the cutaneous septum, and the kidneys, and to continue for a greater or less duration of time, a period which is in exact ratio with the quantity of alcohol which has been administered. Indeed, it is a matter of every-day observation that alcohol in any of its combinations, and all of the anæsthetics, are more or less powerfully diuretic.

Still later experimenters, among whom the more prominent are Drs. Bäcker, of Germany, and Hammond, of the United States, have shown the members of this class to be possessed of a peculiar power as "arresters of metamorphosis." This more recent view looks towards a physiological explanation of their sphere of action. If we remember that waste and repair is the law of life in the tissues, that the grade of each of the animal structures is marked by its vascularity, this vascularity being an index to the activity of its physiological metamorphosis, the importance of determining whether or not this order of indirect nutrients are of service in the regulation and control of such important processes, is at once apparent. More than this, if the opinions of Drs. Bäcker and Hammond are well-grounded—as their published experiments would seem to prove—alcohol, tea, coffee, and the like are to be classed among the foods, and not among the medicines. Hammond proved that when food was sufficient, alcohol was injurious; but that when it was deficient or of an improper quality, it might arrest or retard the too rapid waste of tissue material. A laboring man who exceeds the strength of his rations in his outlay of physical force, flies to one or another of these substances, thinking them capable of supplying any deficiency in proper alimentary materials. He *knows* them capable of aiding him in his extremity, and resorts to them without fear of ultimate consequences. But the result in patching out his available force is not because of their being stimulants, in the old sense of that term, not because they are calorifacient and minister to his muscular power through a proper regulation of the bodily temperature, but for the simple reason that they turn the key upon the destructive assimilation of the tissues, and thus economize the nutritive resources. They do not supply a direct nutriment, for, as we have seen, they are eliminated as speedily as possible unchanged from the organism; are not heat-making, but so regulate the drain through the various emunctories as indirectly to make an ounce of food go farther than otherwise it would. Moleschott calls alcohol "the savings-bank of the tissues." It is certainly as proper to rank it as food, as any substance which is not really histogenetic, as for example, starch and sugar.

We need not enlarge upon the theme of eloquent physiologists, that not only every species of bodily exercise, but every thought, and every effort or emotion of the mind, involves an expense to the textural economy, which must be met. Alcohol, tea, coffee, and tobacco have each and all a calmative influence, which depends upon the facility with which they arrest, or, more properly speaking, retard structural metamorphosis, and so husband the nutritive resources of the organism. Alcohol finds its way most rapidly into all the tissues, and the same is proved to be true of coffee, when given as an antidote to most of the narcotic poisons. This very diffusibility adds to their seductive charm. It makes them the more dangerous in the hands of the weak-minded and irresolute. Our men of business, whose mental friction is rasping away their tissues too rapidly, and threatening a worse bankruptcy than that which they hope to avert through very excess of toil, and thousands of others, to the seamstress, who has grown intemperate upon tea and toast as her sole aliment, are driven to the use of this class of substances as the most available temporary nutrients at command. And in this we have the key to their physiological action—the only simple and yet satisfactory method of explanation for their good effects in conditions of system in which there exists a want of balance between waste and repair, where, so to speak, the leakages are endangering the good ship, and the indication is most manifest. There *may* be conditions of system in which they shall act both in a nutritive and curative manner, in which a little of alcohol, or of tea or coffee, appropriately administered, might serve to save life; and where stronger food, on the one hand, or medicine alone upon the other, or both these, might fail of any good result.

The following practical hints and inferences are deducible from the foregoing views upon the subject:

Firstly. We should study the subject of dietetics from a *physiological*, as well as from a *chemical* stand-point. It is a chief fault of Liebig's classification of food, and of all modifications of it, that it is exclusively chemical. His tables begin and end in the laboratory, as if life-processes and peculiarities did not transcend chemical analysis. It is true, that we must not ignore the claims of the latter, for it is an old maxim, that "the man who holds a ladder at the bottom is frequently of more service than he who is stationed at the top of it." It is simply impossible to keep life within the organism, unless the conditions of its stay are made certain. But, in its broadest sense, nutrition does not concern alone the mere statics of structure. It is intimately connected with, and responsible for the proper play and performance of the bodily functions. If, therefore, we would study the relations of a proper aliment to the human organism, we must lay a rational physiology, as well as chemistry, under contribution toward that end. The worthlessness of exclusively chemical diet-tables, designed for particular diseases, is shown in the medical history of diabetes mellitus—the more modern and successful physicians having discarded them *in toto*.

Secondly. It is not desirable to be super-scientific, or rather, too exacting of nature, insisting that she shall accept and appropriate what we proffer as aliment, and be satisfied therewith. The best criterion for food is the appetite, providing always that it be not too depraved or morbid. The stomach is the indicator for the system, and it does not cry alone for the supply of its own needs. One and singular of all the miniature members of the cell-republic send up their petitions through it. The appetite is really in the several tissues themselves. The organism *is* a cell-republic, the stomach its central bureau of original supplies, the blood its treasury. An independent existence—state sovereignty, if you please—would not be tolerated in our natures *any more than in our nation!* If it were carried too far, sloughing and death would be the inevitable result. The simple lack of a little vegetable acid in the human system once kept the hold of the ship, the hospitals on shore, and dead-houses everywhere full of the victims of a disease which is now known only to the history of medicine—the scurvy. When my patients crave acids, I allow them, but in a form not to be harmful. Indigestible cucumbers, walnuts, cabbage, &c., are always unwholesome, and should be forbidden, especially since it is possible to introduce the desired acid in some other way. Oranges, affording a mild strength of citric acid, are often grateful, and salutary also. I am much in the habit of prescribing them in biliary and anginose disorders, and have cured cases of apthæ and of stomatitis materna with them alone. The most aggravated case of pyrosis which ever fell under our observation was cured by eating tart apples, and every Member has heard of diarrhœas and dysenteries being cured by buttermilk, cider, lemonade, &c., &c.

Mrs. K. was dying in the early convalescence from typhoid fever. The crisis had passed a few days previously, and I found her sinking rapidly from a mere lack of vitality—of available strength with which to rally. She had had a morbid desire for raw oysters and vinegar—something which she never ate while in health—but these had been denied her. We permitted them and prescribed nothing else, excepting a gradual change to a more nourishing diet; and she recovered rapidly.

J. M. W., Esq, had been forbidden to eat baked apples, on account of a recent attack of autumnal dysentery. He was extremely emaciated, scarcely able to crawl around the house, and had desired the above food for a fortnight. At the end of this period he despatched the family, save a young daughter, by subterfuge, to church on Sunday, got hold and ate freely from a plate of apples, and convalesced very rapidly, without any ill results.

Such cases are familiar in every one's experience; but do we learn the practical lessons taught by them? One's obliquity of vision should not lead him astray. We must sail the ship to, or alongside of nature, and we shall not go very far in the wrong. We might with as much propriety deny our patients sleep, as to deny them food. A patient's eyes may be "larger than his stomach," but a true physician has the tact to discern the disparity. It is useless to speculate upon the value of this or that regimen, or of this or that chemical *rationale*. We must bring the abstract and the actual together, and then we shall discover that, in the matter of dietetics, as well as of distinguishing between food and medicines, homœopathy and common sense are not so incompatible after all. We should carry out the principle of the golden rule, and not set reason and revelation at defiance by our too rigid diet-tables for health or disease.

Thirdly. Medicines deal primarily with *forces*, and secondarily with *forms;* food primarily with *forms*, and secondarily with *forces*. Only remember this one, well-defined line of separation, and we need never confound their spheres of action, or fail of the best and most appropriate results in their employment.

ARTICLE XVIII.—*Resection of the Sternal two-thirds of the Clavicle.* By Brigade Surgeon E. C. FRANKLIN, of the U. S. General Hospital, Mound City, Ill.

CASE 1.—George W. Spaulding, private in Co. D, 52d Regiment Ills. Vols., aged twenty-three years, of nervous sanguine temperament, was wounded at the battle of Pittsburg Landing, Tenn., on Sunday, April 6th, 1862, by a musket-ball striking one of the buttons of his coat, and glancing, hit the external portion of the middle third of the clavicle, shattering and breaking the bone, and finally became imbedded under the clavicle near its sternal articulation. He was admitted into the U. S. General Hospital, Mound City, April 11th, 1862—five days after the injury—with the following symptoms, viz.: Pulse 85; general condition of the system good, and undisturbed by the suppuration, which at this time was considerable.

On the 17th of the month several detached fragments of clavicle were removed, nearly one-third of an ounce ball, together with a few pieces of lint and clothing. The bone was entirely denuded of periosteum in that portion exposed, and was taking on a blackish appearance. Up to this day, the 22d, his pulse ranged from 75 to 90; appetite good, and although the suppuration and sloughing continued daily to increase, until you could have put a hen's egg in the cavity, the general condition of the system remained as before. Treatment consisted of frequent applications of Calendula lotion to the suppurating surface,wine and nourishing diet, with an occasional anodyne at night.

On the 22d, there being no symptoms counter-indicating an operation, I concluded to resect the inner third of the bone, pare off the suppurating edges, and bring the two healthy edges together, and preserve them *in situ* by the interrupted suture. The patient having been placed under the influence of Chloric-ether, three of my medical staff, Drs. Thompson, Boyd, and Nelson, assisted me in conducting the operation, which was begun by making a longitudinal incision along the lower border of the bone, commencing about one inch internal to its attachment with the sternum, and extending beyond the point of fracture two inches, sweeping through the integument, superficial facia, exposing the fibres of the pectoralis-major muscle, which were divided in turn, keeping close to the shaft of the bone, and avoiding the important vessels and nerves that emerge from the thoracic cavity. Great caution was used in not dividing the cephalic vein as it lay in the sulcus between the pectoralis major and deltoid muscles, after dissecting the flap to nearly one-half of the circumference of the bone, keeping the instrument in close contact with its under surface, alternately cutting with the blade, and separating the fibres with the handle of the scalpel, the lower border of the clavicle was cleared to its sternal articulation. Dissecting up the superior flap, and dividing the platysma, sternal and clavicular attachment of the mastoid muscle, considerable mobility was given to the bone seizing hold of the sternal end, with a strong forceps, and alternately raising, and twisting the bone, the sterno-clavicular articulation was then divided, cutting carefully from without inwards. The sub-clavian vein from the edge of the lower margin of the first rib, to the inner edge of the sterno-clavicular articulation, where it unites with the internal jugular, to form the vena-innominata, lay so closely to the sternal end of the bone that it was exceedingly difficult to separate the attachment without wounding that important vessel, the division of which would produce immediate death. The pleura could be seen after the removal of the bone, and the pulsations of the sub-clavian were plainly visible. After removing the bone, search was made for any foreign bodies that may have been concealed under its lower border. A large brass button, of the regulation pattern, such as is worn by U. S. Infantry, was discovered, buried beneath the acromonial portion, and in juxtaposition with the acromial process, which was carefully extracted. The sharp, and rugged end of the acromial portion, was then sawed off by Hey's metacarpal saw, after dissecting up its continuity beyond the point denuded of periosteum. The wound was then thoroughly sponged of all extraneous particles, the suppurating surfaces pared off, and drawn together by the interrupted suture. After the resection of the bone, and the yielding character of the parts, this was easily accomplished, and done for the purpose of getting union by the first intention. The operation occupied about twenty minutes, and was concluded successfully with the loss of less than two ounces of blood. The patient bore the operation well, and every indication prognosed a speedy recovery. After removing him from the amphitheatre to his ward, a portion of Brandy was ordered to quiet irritability and procure sleep.

April 23.—Patient feels comfortable, slept well, and feels much refreshed. The wound shows no evidence of inflammatory action; tongue clean and moist, pulse 87; appetite good.

April 24.—Symptoms as the day before.

April 25.—Bowels have moved twice; passed a comfortable night, wound appears to be suppurating internally, with escape of pus from one of the ligatures near the sternum; pulse 90; tongue still clean and moist; skin cool.

April 26.—Has some fever; pulse 98; tongue slightly coated in the centre; headache, and some pain at the sternal end of the clavicle ligatures (two) near the sternum have sloughed away, with considerable discharge; appetite capricious. Ordered two table-spoonsful of wine every two hours, calendula lotion to the wound, with nutritious diet, and an anodyne at night to procure sleep and to quiet irritability.

April 27.—Patient not so well as yesterday; pulse varying from 100 to 107; colicky pains in the abdomen, with considerable diarrhœa; nausea; slight cough with pain in the upper lobe of right lung; slight twitching of the extremities; skin dry and pungent. Ordered a sedative, with frequent sponging of the wound and Calendula dressings as before. Appearance of erysipelatous inflammation around the wound.

April 28.—Erysipelas has attacked the wound and the parts contiguous are much swollen; suppuration excessive; pulse from 90 to 95 during the day; patient says he feels better; discharge of pus copious and offensive. Ordered five drops of Tinct.-mur-ferri every two hours, with wine as before; painted wound with Tinct.-Iodine and substituted Zinc-water dressings in lieu of the calendula; light but nutritious diet and anodyne at night.

April 30.—Patient feels better; pulse reduced to 88; tongue inclined to clean; fever less than yesterday, but considerable restlessness. Ordered Mercurius-dulcis, 1, every three hours, with Zinc injections in the wound as before; nourishing diet, and wine, beef-tea, &c.

May 3.—For the past two days the pulse has varied from 88 to 96; tongue cleaning off, and appetite improving; patient feeling much better; patient using freely porter and beef-tea; zinc injection and arnica dressings to the surrounding parts; erysipelas checked.

May 5.—Patient feels considerably depressed by reason of the patients in the hospital being removed to St. Louis in consequence of the overflow of the Ohio, and the lower story of the building being inundated; wound discharging freely; pulse 90; complains of pain in the throat; fauces inflamed. Ordered one-tenth of a drop of Belladonna internally every three hours, and gargle of Belladonna for the throat;—local treatment as before: porter, beef-tea, and nourishing diet.

May 7th.—Patient passed a restless night, and feels much depressed; considerable fever; tongue coated; pulse from 90 to 115. Complains of depression at the præcordia, with difficulty of swallowing; headache; cough; discharge of pus excessive and very offensive; wound is filling up with healthy granulations, and is beginning to assume a more healthy character.

Ordered Zinc lotion to the wound, the edges to be touched with Argent.-nitrat., and a light yeast poultice at night to the parts, and an anodyne to procure sleep.

May 8th.—Patient was taken with vomiting about six o'clock this morning, and died in a few minutes afterwards. Cause: sloughing of the pleura, and discharge of pus into the cavity of the chest.

Remarks.—I cannot but conclude from a daily investigation of the above case, and from a deep interest manifested by the surgeon in charge of the ward in which the patient lies, that, had not erysipelas attacked the wound, causing such great destruction of the internal parts, and subsequent excessive discharge of offensive pus, the patient would most certainly have recovered, and the operation would have been successful in its final results. Until the erysipelas set in, the symptoms generally were favorable, and everything prognosed a complete recovery.

Article XIX.—*Organic Stricture of the Œsophagus, and its Cure by Dilatation with graduated Probangs.* By Wm. Tod Helmuth, M.D., of St. Louis.

Stricture of the œsophagus is rather a rare disease and one possessed of much interest both to the surgeon and physician. Its causes are various; sometimes they are attributable to action of irritants; sometimes to injuries; at times from compression from external growths, and more frequently by an irritation of the tube arising from chronic indigestion.

When we consider the anatomical structure of the œsophagus, and the great variety of substances that are taken into the stomach, both hot and cold, sour and sweet, the rich compounds of the kitchen, the highly seasoned articles of the restaurant, or the more delicate, though not less indigestible aliment of the confectioner, all of which pass over the mucous membrane of the tube, it is really a matter of surprise that more disease is not developed in this portion of the alimentary tract.

So far as my own observation and reading extends, I am led to believe that stricture of the œsophagus is rarely idiopathic, being generally accompanied by disease of other portions of the digestive apparatus, notwithstanding cases have occurred in which it can be certainly attributed to the action of medicinal substances. Wolf* reports the case of a young man, aged twenty-six, who had accidentally swallowed some oil of vitriol, great inflammation followed, contraction of the œsophagus resulted and increased to such a degree, that upon his admission into the hospital, he had lost all power of swallowing—a perfect stricture having formed. No doubt many such are upon record.

There are three varieties of stricture, first, the spasmodic; second, the chronic induration; and thirdly, the malignant; the latter arising from carcinoma and attended with ulceration and perforation. Many excellent authorities make but two divisions, the first being the spasmodic, the second the organic, the latter embracing the chronic induration and the malignant variety.

In this paper we propose to speak of the organic form of the affection, and its surgical treatment—merely premising that in spasmodic stricture the *circular muscular fibres* are the seat of the affection; the disease *occurs at intervals*, the patient suddenly finding himself incapable of swallowing, at the same time experiencing a sensation of choking; added to this, there is not much emaciation, although there is generally great nervous irritability of the whole system. The disease is more prevalent among females than males, and is amenable to internal medicines.

One of the most interesting cases of this kind has been published in this Journal, from the pen of B. F. Joslin, jr., of New-York. The patient suffered extremely, and notwithstanding the best directed effects finally succumbed to the disorder. The post-mortem examination revealed a small hard osseous tumor, an inch long and half an inch in breadth, with various spiculæ of bone projecting from it, situated just above the bifurcation of the trachea; *a nerve was found very intimately connected with the anterior face of this tumor.* Dr. Joslin considers this filament to have been a cardiac branch of the pneumogastric nerve, the irritation of which, by the presence of the tumor, caused the difficulty in swallowing. The writer says, the bony tumor "did not press on the œsophagus and was only loosely attached to the trachea; it was firmly adherent to the posterior portion of the vena-cava superior; it could only be implicated in the production of the symptoms by its relations with the pneumogastric nerve."*

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* Rankin's Abstract, No. XVIII., p. 246.

In organic stricture, the symptoms are quite different, there is always accompanying indigestion, and the symptoms of dysphagia are generally the same; there is a peculiar expression of the face, the features being pointed and exhibiting the tokens of anguish and distress; emaciation is a marked symptom. The patient swallows food or drink, or at least passes it through the fauces, along the œsophagus until it meets with the stricture, there it remains for a moment and is regurgitated—the constant effort generally made by the patient to effect an entrance into the stomach, and the presence of the food immediately above the stricture in time develops an enlargement of the part, so that in many cases of organic constriction, there is formed above the site of the disease an expansion or pouch. This sacculation may sometimes be enormous. Rokistansky mentions a case in which the passage was large enough to admit a mans' arm. Mott† refers to a case in which a pouch was formed four inches in diameter, and there are others in which the dilatation was considerable. Such a one is reported in the Provincial Medical and Surgical Journal, July 28, 1847.‡ The patient, a gentleman aged sixty-nine, had experienced slight dysphagia for three years without material derangement of his general health; the difficulty in swallowing, however, gradually increased, and a stricture was discovered by the probang, opposite to the cricoid cartilage. After death, a pouch or bag was discovered proceeding from behind the œsophagus and passing down in front of the vertebræ. Two-thirds of this dilatation were invested with muscular fibres proceeding from the constriction of the pharynx, which was also much enlarged. The stricture was composed of hypertrophied mucous and cellular tissue, and scarcely admitted a common-sized bougie. This case is interesting, because it points to the fact that besides the mucous and sub-mucous tissue, that muscular fibre also may enter into the formation of organic constriction; in which view also Gross and Miller coïncide, although the former states that it is only in the aggravated cases that the last-named constituent assists in the creation of the stricture, while in the ordinary cases that are encountered the mucous and sub-mucous coats are affected, there being a deposit of plastic material in the part, causing a thickening of the tube.* The seat of stricture is said to be generally opposite the cricoid cartilage.

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* "A Singular Case of Spasmodic Stricture of the Œsophagus." By B. F. Joslin, jr., M.D. N. A. Journal, No, XXXIII., page, 134.

† Operative Surgery, Vol. III., p. 499.

‡ Rankin's Abstract, 1847, p 191.

With these few remarks on the general nature of organic stricture and its diagnosis, and without entering upon the consideration of the malignant, ulcerative, or carcinomatous variety, we pass to the history of an interesting case.

During the latter part of the month of May I was called in consultation to see a patient, who, from the description I heard of the case, was almost in a dying condition. From the detailed symptoms I was led to suspect a stricture of the œsophagus, and upon visiting the patient, (a woman aged about forty-five,) my diagnosis was found to be correct.

The patient was in a truly miserable condition, she was much emaciated, with sallow complexion, tongue very red at the tip and but slightly furred, great nervous irritability, with a voice so weak that she could scarcely articulate, excepting in a whisper. Her pulse was small and thready, and upon being asked where she suffered, she placed her hand to the lower portion of her neck. Her attendants informed me that she had been under the care of several physicians, the last of whom declared her case hopeless, and had written to her husband,—a captain in the army of the United States,—informing him of the critical condition of his wife, and urging his immediate return, if he desired to see her alive.

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* Gross, Operative Surgery, Vol. II. p. 656.

On the table before her were several dishes of untasted articles of diet, several glasses containing various drinks, but she said she could not swallow them; upon insisting that she should endeavor to take a little cold water, she placed the glass to her lips, and made an effect to swallow; the liquid left her mouth, descended a short distance into the œsophagus, and was immediately returned without much effort. Upon inquiry I learned that she had been six or seven weeks in this aggravated condition, and that the disorder had been noticed at times for years, and had often given her great trouble,—sometimes a little thin broth would descend into the stomach. I feared that the woman would die from cenosis before much could be done for her, but ordered immediately an injection of soup (which she had on the table) to be given, while I sent for an ordinary sponge-probang and the stomach pump. Upon attempting the introduction of the former, it was with great difficulty and with some pain to the patient, that I succeeded in passing it through the stricture; after which I allowed it to remain for a few moments, then again introduced it, after which by repeated effort I forced the smallest sized tube of the pump through the stricture and into the stomach; this being accomplished I injected into the viscus about a pint of broth. I shall never forget the pleased expression of the patient as she felt the almost immediate effect of food. When I called in an hour her pulse had come up, and she experienced great relief, whereupon I injected about half a pint more of the soup and promised to return in the morning. During the interval between the visits I had prepared six whalebone probangs, with ovoid extremities of horn, the latter varying in size from one-eighth to an inch and a quarter in diameter. Some difficulty was found in passing the smallest of those instruments, but the stricture gradually dilated under their constant re-application. During this stage of the treatment a very peculiar fact forced itself upon my consideration. Having made myself acquainted with the facts above mentioned in this paper,—that in aggravated cases of stricture the muscular fibres of the œsophagus are implicated, as well as the mucous and submucous tissue, and knowing the action of certain medicines upon these fibres and the nerves that control them, I was induced to exhibit *Ignatia* and *Cocculus* once in two hours, as a matter of experiment, not, however, expecting much result from their administration. Upon the next visit I found that the probang last used passed quite as well and without more difficulty than it had done on the previous day. Could such an effect have been produced by the medicines, or was it merely that the disease was stationary? I determined to omit all medicine and use the same probang on the day following, when to my surprise and rather to my satisfaction I found considerably more difficult entrance through the stricture. Suffice it here to say, that after repeated trials, the probangs always entered more easily after the exhibition of these medicines than when no medicinal agent was used. It must be borne in mind, that my practice was to always insert the probang of yesterday before a larger diameter was introduced, as by this means I was enabled to perceive progress or reverse in the case.

After five weeks of constant treatment with the probang, and the exhibition internally of *Ignatia*, and *Cocculus*, *Hyosciamus*, *Arsenicum*, and *Mercurius*, and other medicines, the patient so far recovered as to be able to eat her usual meals with satisfaction, her flesh returned, her countenance was more cheerful, and she went into the country to recruit her general health.

It may not be uninteresting to repeat here another case of stricture, cured in a somewhat similar manner by Caleb B. Matthews, M.D., one of the pioneers of Homœopathy in Philadelphia, who to the day of his death was an unswerving advocate of Homœopathy, whose zealous attachment to the profession of medicine was remarkable to the end of his life, and whose priority to the claims of the discovery of ether as an anæsthetic agent should always be remembered by the members of our school. The case is in the form of a letter; it reads thus.

"Miss ——, aged about 18, applied to me about the year 1829. She was unable to swallow anything except fluids, and those in small amount. She had been treated by Dr. George McClellan*, by means of a flexible sound of block tin, without benefit. I began using the smallest sized probang and Bell's sound, which passed with difficulty, but continuing it several days it passed easily several times backwards and forwards through the stricture. I followed with the next size in the same manner, using each four or five days, or until it passed easily, thus continuing up to the fifth or largest size. This occupied four weeks or more, at the end of which period I was convinced, the stricture was subdued, but the patient was afraid to swallow solids; I obtained a piece of meat of ordinary size, say seven-eighths of an inch cube, and made her swallow it in my presence: this broke the charm, and she could swallow well ever after. I have seen this woman this autumn (1850), and she remains perfectly free from her stricture."

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* Father to the present great General of the United States Army.

M. Wolf reports a case of stricture cured in a similar manner in four months, and M. Debourge also gives a similar result after five months persistent treatment; these are interesting but too elaborate to insert in this paper.

If catheterism of the tube fails, œsophagotomy has been resorted to, and Professor Sedillot recommends gastrotomy after the œsophagus has been greatly constricted.

EXTIRPATION OF THE NASAL PROCESS OF THE SUPERIOR MAXILLARY BONE BY SUBCUTANEOUS SECTION.—Some months since, a gentleman from Tennessee presented himself at my office, stating that he had rather "a curious ulceration" of his gum, which he thought required attention. He appeared rather emaciated in flesh, though of powerful frame, which latter seemed strangely in contrast with the apparent debility of his system, as he moved with difficulty and supported himself with a cane. Upon raising the upper lip an ulceration was presented, which at once testified the serious nature of the case; the upper gum of the right side of the mouth, from the frænum labii superioris to the commissure was destroyed, the alveolar processes of the lateral incisor and canine teeth were also wanting, the fangs of these teeth being exposed and the depression behind the root of the canine tooth being also involved in destruction. Projecting slightly over the fangs of these exposed teeth was a shelving piece of bone which was a portion of the base of the nasal process of the superior maxillary.

To those who are unacquainted with, or to those who have partially forgotten the anatomical relations of this process, a few words as to its normal position may not be amiss.

The base of this process may be said to commence anteriorly in the subnasal fossa, and, posteriorly from the palate process of the superior maxillary bone; from such origin and making a curve a little outward, and then upward, it extends with a sharp external margin to the roughened surface of the frontal bone on each side of the ethmoidal fissure, to which it is articulated; internally it springs from the body of the bone a little beyond the infra-orbital foramen the orbitar ridge, being lost on the ascending ramus. To the superior and anterior part of the nasal process of the superior maxillary, the nasal bones are attached to the inferior part of the same margin, the lateral or alar cartilages have their points of origin. I have mentioned these various boundaries of the bone for the better appreciation of those, who may consider an hour as an unwarrantable time to be expended in its exsection, and I would beg such to bear in mind that the chief embarrassment in the whole operation was the hæmorrhage, which took place from the surfaces of the bone after the nasal process had been removed.

Upon catching the shelving portion of the bone, (which was entirely diseased,) with the forceps held in the right hand, and inserting my left forefinger within the mouth, almost an entire separation of the *base* of the nasal process could be detected, and by raising the lip and placing the flat edge of a probe upon the anterior face of the diseased mass and pushing the instrument gently upward, not only a considerable portion of diseased bone could be detected, but it moved with but little difficulty to the internal angle of the orbit.

Taking all these circumstances into consideration, I told the patient that the whole process must come away. Upon learning this, he expressed some dissatisfaction, more, however, from his objection to the scar which would probably remain upon his face, than to submitting to the actual pain of the operation.

I advised him to see me on the next day, and during the interval that elapsed between the visits of my patient, I had determined to endeavor to exsect the bone by subcutaneous section.

Accordingly on the 30th day of October last, at two o'clock, P. M., the patient having been placed under the influence of chloroform, and facing as strong a light as I could command, Drs. Godfrey and Loague assisting, I drew up the upper lip with the thumb and fore-finger of the left hand, and taking a tenotomy knife with a strong shank and handle in the right hand, I inserted it with the flat side towards the bone, and carried it upward and inward to the angle of the eye, cautiously separating all the structures externally, and avoiding the lachrymal duct. The knife was then withdrawn, and with a small sharp chisel the anterior attachment of the inferior turbenated bone was severed.—Disease, however, had attacked this bone, as it broke. With the forceps the whole of it was removed. At this stage of the operation the blood had become clotted in the nares and portions of it had fallen to the fauces, impeding greatly respiration, and causing such a spluttering, that time was lost in relieving the patient. Such trouble, however, had been foreseen, and the sponge probangs which had been provided for such emergency, proved of signal service. The greatest difficulty of the operation, now presented in severing the internal attachment which consisted of healthy bone, which after some delay was accomplished by inserting within the nose a fine chisel and with the edge turned outward, using it gently upward and downward. There remained now but a single attachment, the superior, which is the lightest of the three, this was readily broken away by catching with the forceps the base of the process, which was already loose from disease, and with a lateral though steady motion, making downward traction.

We had been so intent upon the operation, and no vessel requiring a ligature, that we did not observe the quantity of blood which had been lost, but when the sponging began, we were aware of the considerable amount of hæmorrhage which was taking place; this continued for some time, and I was fearful that the track of the subcutaneous wound would have to be laid open externally. Rather, however, than resort to this, I first plugged the wound with cotton, wetted with a saturated solution of Alum. This not arresting the bleeding, I had recourse to a solution of the perchloride of Iron, which finally arrested the hæmorrhage. The patient at first was much prostrated, but soon recovered his strength, the wound healed well, and in six days after the operation he returned to his home.

General Record of Medical Science.

The Legality of Drug Provings recognized. An account of the malicious prosecution of Dr. E. A. Lodge, of Detroit, for manslaughter,—he being falsely accused of causing the death of Margaret Washington, who had been the subject of proving the drug Gelseminum.

Margaret Washington, a colored woman was employed in my family as a house-servant. She was a fat woman of low stature, short neck and usually languid in her movements. She never complained of any sickness or asked for any prescription, she was supposed to enjoy fair health. On the 15th of January, 1862, shortly before supper-time I administered to her with her free consent, for a *proving*, about thirty-five drops of tincture of Gelseminum. This tincture had been prepared twenty hours previously with dilute alcohol, from a sample of the *dried* root. After supper I went up-stairs to the second story front room and sat down at my writing table. While I was thus engaged, Margaret hurries up-stairs from the basement, comes into my room breathing very hard, exhibiting in her countenance intense fear, and exclaiming "Oh, doctor, I'm dying! I'm dying! do something for me." She attempted to lie down upon the bed, her head had barely touched the pillow, when she sprang up convulsively, calling out in a loud whisper "my breath, my breath." She clapped her hands across her breast rapidly, seemed unable to retain one position for more than a few moments. Finding that her pulse was below 40 and extremities cold, I resorted to stimulants, and sent out for the assistance of two medical friends. She rallied for a few minutes, then struggled as for breath and cried out. Presently she was taken with an excruciating chest pain. In a suffocative spasm she got down upon the floor, went into an apoplectic stupor, breathed hard, foamed freely at the mouth and died within ten minutes after the suffocative spasm. Previous to the spasm she was conscious and rational; after that, she did not speak. From the time of her coming into the room to her death was less than half an hour, and the time of *death was within two hours* after taking the medicine.

Shortly after the death of Margaret I sent out for the coroner, requesting him to call and decide whether, under the circumstances, it would be proper to hold an inquest. Dr. Edward Lauderdale, an allopathic physician, came, summoned his jury in a very unceremonious manner, this jury also being exclusively allopathic. He then engaged Dr. C. H. Barrett, another allopathic physician, to make the post-mortem examination. The coroner's jury returned a verdict that the remote cause of death was disease of the pericardium and the immediate cause the injudicious administration of Gelseminum by Dr. Lodge.

The day after the rendition of the verdict the prosecuting attorney, David E. Harbaugh, another allopath, makes an information that I had unlawfully killed Margaret Washington, upon this I was held to trial. [In this state grand juries have been abolished.]

The case came on for trial on the 20th of May, 1862, before the Recorder, Honorable Henry A. Morrow. The jury being sworn, the prosecutor thus opened his case:

"The defendant, Edwin A. Lodge, who is I believe a doctor, on the 15th of January, having a decoction (!) of a root called Gelseminum, gave a quantity to the deceased Margaret Washington. Certain effects were produced. In one and a half hours she died. It will be a question for you to determine whether, under the circumstances, the administration of the Gelseminum causing death, whether the defendant has not committed an offence against the laws of the land.

"We shall show she died from no other cause than the administration of the poison. If so, and it was improperly and recklessly administered, although there was no intention to produce death, the defendant is responsible.

"The general law relating to these cases is this: "If a person, whether a medical man or not, profess to deal with the life or health of another, and if he cause the death of the other through a gross want of either" (care or knowledge) "he will be guilty of manslaughter."

"The law duly protects physicians. We do not charge them with criminality when they are unfortunate in their practice, if they used ordinary skill and diligence, but in this case the evidence will disclose that the defendant *was not treating the deceased as a patient, she was not an invalid. It was a mere experiment to determine the strength of the medicine.* It differs, therefore, from cases where physicians are operating upon their patients."

Dr. Charles H. Barrett sworn:

Made a post-mortem examination of Margaret Washington. I opened the head and examined the brain and its membranes. Substance of the brain in perfect health, there was considerable venous congestion of the membranes of the brain. Substance of lungs healthy, pleura slightly adherent, old adhesions, three or four perhaps (!). The heart of natural size, pericardium slightly adherent to sternum, within the sac I found a quantity of light-colored serous fluid to the amount of three ounces, I should judge (!). I did not measure or weigh it. I guessed at it (!). There was much more than the usual quantity. Stomach, no signs of inflammation. Liver and spleen healthy.

I know nothing about the Gelseminum *practically*. I have studied it in the books. It is a depressant acting upon the circulatory and nervous systems. It relaxes the muscular system. It acts upon the brain, also upon the eye, producing double vision. In my opinion the serum around the heart would cause the action of the heart to be more labored, making the effect of a medicine acting on the heart to be more deleterious. The disease of the pericardium in this case was not sufficient to produce death, without some other exciting cause. *There was no* organic disease of the heart itself.

The death in this case was produced in my opinion by the dose of medicine, combined with the dropsy of the heart. There was no organic disease discovered sufficient to account for the death.

Cross-examined.

The post-mortem was conducted by myself, the physicians present were mere lookers on. *It was a critical post-mortem, as far as the heart and brain were concerned.*

"Did you weigh the heart?" No, I did not.

Did you weigh the fluid? No.

Did you examine any part of the heart with a microscope? No.

When you came down to the pericardium and found there was fluid within it, you opened it I suppose very carefully that the amount of fluid should be definitely ascertained? An incision was made, much of the fluid escaped into the cavity of the chest (!) And you call this an accurate, fair, *critical* post-mortem examination do you? "Well, I cannot say it was *very* accurate."

I do not think she died of any other disease of the heart, if she had, the post-mortem would have disclosed it.

If she had been troubled with fatty degeneration of the heart, it would have been revealed without a microscope.

"Do persons die from angina pectoris and post-mortem examinations fail to discover any traces of organic disease?"

"I do not recollect any such cases"

"What is the reputation of M. Andral?" "He stands high."

"Does he report such cases?" "I do not know."

"What caused the accumulation of fluid within the pericardium?" "The same inflammation probably that caused the adhesion of the pleura."

"Are you well acquainted with the Gelseminum?" "From the recorded opinion of others I am, I have a good knowledge of the drug."

"Will you please state how it affects the respiration?" (hesitatingly,) "*I do not know.* I have studied the medicine, but have never used it, and cannot state the particular organs that are affected by it."

Dr. Edward Lauderdale was sworn and related *his recollection* of Dr. Lodge's testimony before him as coroner.

Dr. J. M. Allen. He served as one of the coroner's jury and related what he remembered of Dr. Lodge's testimony, &c.

Indy Taylor, (colored) sworn. Knew the deceased, was a large heavy set woman, ate hearty, saw her the Monday before she died.

Dr Zina Pitcher sworn. (Allopathic.) I have been forty years in practice. I have no practical knowledge of the Gels. I know its properties from the books. It belongs to that class of narcotics called sedatives. It diminishes vitality directly. It is regarded as a poison. It has peculiar effects on the vision, producing blindness. It acts on the circulation, and causes great depression of the whole system. Vegetable poisons act differently, some produce stimulation first, and *then* callapse; others, such as Helleborus, Tobacco, &c., produce depression primarily.

Gelseminum interferes with the functions of the heart. I heard the testimony of Dr. Barrett, from his statement I do not think there was sufficient disease to cause death independent of the drug.

The color of the fluid effused within the pericardium showed that it did not result from recent inflammation.

I should doubt whether the exhibition of a narcotic such as Gelseminum would hasten death without there existed organic disease.

Cross-examined.

What quantity of Gelseminum will prove dangerous in ordinary cases? I have no information that will justify me in saying. Unexpected effects are produced sometimes. I prescribed Veratrum-viride for Mr. Van R. who had gout, it nearly killed him. It was with difficulty I could save him. It produced frightful prostration, unexpected and unusual.

Mr. Lothrop. "It would have been bad for you if he had died, and Mr. Harbaugh had been prosecuting attorney."

Mr. Harbaugh. "He was not experimenting, if he had been and death resulted, I should have had him up, sure."

Dr. Pitcher—testimony resumed. "With skillful physicians and the wisest use of remedies, results will happen which could not reasonably be anticipated.

If a dose of Gelseminum was administered so small as not to produce the prostration which follows its use in large doses, would you expect death to result in so short a time as two hours?" "There is something not easily explained about it."

Saml. P. Duffield sworn. I am an analytical chemist and have been in business four years. I know the Gelseminum botanically. It is a poison. Classed as a nervous sedative. Produces muscular depression without destroying consciousness.

Chemists test their medicines on rabbits. Orfila proved his medicines upon himself and also upon animals.

The eclectics prefer the green root tinctures, but in my opinion the dried root tincture is the strongest. This opinion is purely theoretical, I have not used the drug. Those who use it most extensively prefer the green root tincture.

Dr. Abraham R. Terry sworn:

I am a physician, in practice thirty years. My attention to the Gelseminum was called in 1836. I know the plant but am not acquainted with it medically. It was referred to in lectures I heard in 1830. It is classed as a narcotic poison. Its exponent would be Digitalis. They both produce slow pulse, dilation of pupil, headache, cold extremities, stupor, sweat.

We find idiosyncracies in patients which no man could tell anything about previously, these make medicines act unusually and unexpectedly. A grain or two of Calomel will, in some cases, produce dangerous salivation.

"What produces pericardial effusion?" "General dropsical diathesis, pericarditis, rigor mortis. In cases of death from depressing influence there is more serum than usual. When the serum has been recently effused it will be of a dark color and bloody.

Persons die suddenly of heart-disease without having shown previously any marked symptoms of the disease. The diseases of the heart are wrapped in mystery. In angina pectoris there is intense lancinating pain and great difficulty of breathing, patients having severe attacks will die suddenly and *the post-mortem will not reveal a single indication of any disease.*

"What, in your opinion, was the cause of death in this case?" "I do not know, I could not in justice to myself or others say I did know."

Evidence for prosecution closed.

Dr. E. M. Hale called, and sworn on the part of the defence, the opening of the counsel being defined, by consent, until after the examination of this witness.

I am a homœopathic physician of Jonesville, Michigan, and have been in practice fifteen years. I am acquainted with the Gelseminum, and have made it a special study, for the past seven years, by practical tests and scientific inquiry. I have written several articles respecting it and also a monograph.

It has been used in medicine since 1829, when it was brought to the notice of the profession by Prof. Tully. No other article in relation to it appeared for some twenty years. Its use was confined to the eclectic physicians principally until about four or five years ago, when it was tested by homœopathists. I should look for information respecting it to the eclectic homœopathic school.

"What is the rank it now holds?" (Question objected to by the prosecutor and objection overruled). "It holds the first rank. It is an unrivalled febrifuge, exceeding all others, also very valuable as a nervine, and a powerful anti-spasmodic, ranking as such with Asafœtida. These are its three principal properties.

When administered in disease there results a general quieting of the nervous system; in fevers the heat is decreased, the excited circulation lessened, and perspiration induced. This results from moderate use of the drug, if carried beyond that point it will, similar to Ipecacuanha, Tartar-emetic, &c., produce muscular relaxation."

"What is your opinion in regard to its being a noxious or poisonous agent?" "It ranks properly with Valerian, Chloroform and Alcohol. It is not sufficiently poisonous to exert any dangerous or deleterious influences unless given in massive quantities. *I have used it in my practice every day for the last seven years.* It is not properly classed with hazardous or dangerous drugs, such as Opium, Arsenicum, Belladonna, Digitalis, Stramonium, &c. To class it in a relative point of view it would belong to the second or third series of the group of which Belladonna would be one. It is remotely connected with it in some effects. Valerian is a little narcotic, Opium a good deal."

"How large a dose may be given to healthy persons without endangering health or life?" "My experience leads me to believe that it would be almost impossible to kill a person with the tincture of Gelseminum."*

"In what forms is the Gelseminum administered?" "Powder of the dried root, tincture, fluid extract, essential extract, solid extract, resinoid and alkaloid.

How is the tincture prepared? (Objected to by Mr. Harbaugh.) "If the gentleman will tell us of the properties of the drug we will hear him, but we do not want to know anything about how the tincture is prepared down south, &c." Mr. Lothrop for defence insisted upon the question.

Judge Morrow.—"Mr. Harbaugh, you have detained us all day listening to your witnesses, not one of them had any practical knowledge of the drug in question, we have now a gentleman on the stand who is entitled to be considered an expert in this matter, he knows all about it, if you please let us hear him without interruption.

Dr. Hale's testimony resumed.

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* NOTE BY DR. HALE.—This should be qualified by the following reasons:

1. There is not on record any authentic instance of fatal poisoning by Gelseminum, even when so large a quantity as one-half pint of the *tincture* was drank.

2. It would be difficult to destroy life, in a person of *ordinary health and strength*, with the *Gelseminum*, unless the drug was given in repeated doses, and with an utter neglect of all rational antidotal means. A large dose generally causes vomiting, which expels it before it can be absorbed, but even were it not expelled, the use of stimulants, (alcohol, capsicum and galvanism) promptly antidotes, as witness the case of the deck hands so treated.

3. The statement above, may be put down in the following words:—"It would be difficult to destroy the life of an adult healthy person, with the common tincture of Gelseminum, if the most ordinary antidotal means were used in case the drug induced too much depression." The strong *alcohol* of which the tincture is prepared, would probably be as fatal in its effects as the drug with which it is saturated.

In this, I of course do not allude to those strong preparations of Gelseminum, like the fluid extract, essential tincture, or alkaloid, all of which are so much concentrated as to render them poisonous by aggregated strength.—E. M. HALE.

"The tincture is prepared down south, (by the eclectics,) by filling a whiskey barrel with the green root, whiskey is then poured over it until it is covered. This is the mode of preparing the common green root saturated tincture. *There are no measurements or weight whatever.* Yet it has a definite strength because it is saturated. No tincture prepared in the ordinary way without heat can be stronger than such a saturated tincture.

The green root tincture is the strongest. It is supposed that the active principle is volatile, like Chloroform. Those who gather it are directed not to wash it even, until just before placing it in alcohol. All the eclectic physicians I have consulted, agree that the dry root is comparatively if not entirely worthless or inert.

I have used tincture Gelseminum from Dr. Lodge's Pharmacy for about two years."

"Do you consider that Dr. Lodge has competent knowledge." (Mr. Harbaugh objected and objection overruled.)

Dr. Hale resuming. "Dr. Lodge's tincture of Gelseminum is the best I have used.

Of this saturated tincture a dose of thirty, forty or fifty drops would not produce any hurtful or dangerous effects in ordinary cases. I have taken twenty-four, forty-five and sixty drop doses. It is given by eclectics in doses of ten drops up to one ounce (four hundred and eighty drops), and even one and a half ounces or seven hundred and twenty drops."

"Is there any well authenticated report of a case of poisoning from the Gelseminum to be found?" "*I cannot find one.*

A skilful and prudent physician could administer a dose of thirty, forty or fifty drops without apprehending any hurtful effects."

"What is the practice of proving medicine?" "This custom is not confined to the homœopathic school, but is practised to some extent by others. Our custom is to give drugs to healthy persons in medicinal doses so as to causes ymptoms; by this method we ascertain their rank, position and curative powers in disease.

Why do you prefer healthy subjects as provers? "Because in disease, the symptoms of the malady and the effects of the medicine are mixed in such confusion that no one could separate them.

Provers' Unions are established in the different European kingdoms and sanctioned by the governments, and the system of provings is recognized by the highest authorities of both schools.

I was present at the post-mortem examination made by Dr. Barrett. In my opinion the woman died from angina pectoris, or fatty degeneration of the heart. From my intimate experience with the Gelseminum and the symptoms of the woman during life, and the post-mortem developments, I cannot think that the Gelseminum had any agency whatever in producing death in this case."

"Does the Gelseminum produce fear?" "I never knew it to produce fear, it never causes anxiety, such as that produced by Aconite, Digitalis, &c. It rather causes indifference.

"In angina pectoris there is intense horror, the utmost conceivable anguish, eyes become fixed, glaring open, the patient will grasp at bystanders."

"Well, suppose such a case, what would be the appropriate remedy?" "The Gelseminum undoubtedly! The dose should be graduated according to the age of the patient, and the severity of the case. In a severe attack on an adult a teaspoonful might be given with safety. The Gelseminum is indicated in all spasms, the more intense they are the larger should be the dose.

M. Andral made post-mortem examinations in cases of death from angina pectoris and found there was no organic lesion whatever, no change of structure that was apparent upon an accurate examination."

Cross-examined.

"Dropsy of the pericardium is a predisposing cause of angina pectoris."

"Was not the exciting cause of death the Gelseminum, and did you not assert this before the coroner?" "I stated that it was an *indirect* cause of death, but I have since modified my opinion, and I will state my reasons for doing so. I have killed a great many animals with Gelseminum, rabbits, dogs and cats, and I have found certain conditions in all these animals, invariably, such being entirely the opposite of those presented in the case of Margaret Washington. The differences were these: In the lower animals the heart was always relaxed and full of blood, the contractility of the heart was destroyed before death took place. This woman's heart was contracted firmly, and empty, save only a little shred. Finding this I cannot now say that the Gelseminum had anything whatever to do with causing the woman's death..

I could not succeed in killing dogs with the tincture, I was obliged to use the fluid extract, and it took eight drams of that, to kill a small spaniel.

The general qualities of this drug have been known for some time, but its special qualities are not thoroughly understood, and further provings are necessary."

Opening for the defence by G. V. N. Lothrop, Esq.

"Gentlemen of the jury:—Argument does not appear to be necessary The evidence both for prosecution and defence, is of such a character that did I not think it might be of some special service to you and to my client I should forbear. I shall content myself briefly with showing what is the present condition of this case."

Objection by the prosecutor. "It is proper for the gentleman to state the nature of the defence he intends making, but it is not proper to enter into his argument now."

Mr. Lothrop.—"The prosecutor appears to be determined to be wrong in this case throughout. It is right for me to show the fallacy of the prosecution, I might review the case of the prosecutor and even make my argument here, if I insisted upon it.

What is the prosecutor's position? That the defendant committed the crime of manslaughter in unlawfully killing Margaret Washington. He does not charge any intention to take her life, he does not charge a willful, but only an unlawful act. How unlawful? To constitute unlawfulness, the giving of the drug must be accompanied by gross ignorance or gross inattention. The unlawfulness must consist in one or the other or both. I intend to be plain. You are arbiters and judges of an important question, and I purpose that you shall distinctly understand the defence made.

If a drug administered honestly and with proper purposes, without gross ignorance or gross inattention, though death may result, the act is not criminal. The act was a misadventure, not a crime. Were it otherwise, were the prosecutor's notions the law of the land, your most worthy and accomplished physicians would be inmates of your states prison. There is not a physician in the land, of any school of practice, if his business is extensive, but what has found at some time that his measures instead of prolonging life, have hastened death. Owing to the operation of hidden causes which he could not probe or control, his medicine has produced results which could not be expected. He intended to save life, unwillingly he has caused death.

Inasmuch as the prosecutor has signally failed to show either ignorance or inattention on the part of my client, I might rest here and say I will give no testimony. In the absence of any proof I am *amazed* that the prosecutor is willing to let the case go to the jury at all. The prosecutor has closed without producing a single physician who could swear within his knowledge that the Gelseminum is a poison and had produced death. No evidence as to what dose will produce fatal results, without any evidence that it has ever produced death in any instance. The prosecutor. failing to make any satisfactory case by his evidence, should abandon it at once.

You see the ground for my absolute amazement. There are in the United States probably over a thousand physicians who are acquainted with this drug Gelseminum, yet the prosecutor has failed to put one of them upon the stand. Why? Because there cannot be found one physician who uses this drug, and is well acquainted with its properties, that would be willing to testify that it caused the death of the woman.

Mr. Harbaugh.—The gentleman is arguing the case.

Judge Morrow.—It is customary simply to state what the defence intends proving, although the remarks of Mr. Lothrop are not exactly an argument.

Mr. Lothrop continuing.—Is it not right for me to show fully, clearly and certainly, the complete deficiency of the prosecutor's case?

It is incumbent upon the prosecution to establish definitely that the defendant acted with gross ignorance and carelessness, and yet they have not given you a scintilla of proof to make it out. He starts out with the assertion of the poisonous character of the drug, and then produces no case of poisoning or proof of its noxious qualities, or a particle of testimony showing recklessness in its administration. In my humble judgment, the prosecutor is morally bound to abandon the case; let him state honestly that he has been misled; that my client has been unjustly accused. He should be the foremost to step forward to justify him.

The defendant is a homœopathist. Hahnemann the founder of the system of homœopathy, introduced the practice of proving medicines on healthy persons. Whatever may have been his merits, he is now recognized as having been a great and original thinker, a man of great bearing and philosophical mind. His teaching was, that a medicine, or agent administered to a person in health would produce symptoms similar to the disease which it was appropriate to cure. The principle lies at the foundation of the new practice. To carry it out, provings are resorted to. Drugs are administered to healthy persons, their effects carefully watched and recorded. Upon knowledge thus obtained, the drugs are prescribed to the sick. This is a philosophical course. If drugs are given to the diseased the effects are confounded with those of the malady. Dr. Pitcher has told you that he tests his medicines on his patients. We admired his candor and I have personally, the deepest respect for him, but in this matter he cannot be right. When the drugs are administered to the sick, the danger is two-fold; first, the effects are mixed with those of the disease, and second, when he has discovered that he has given the wrong remedy, it may be too late to give the right one. In Europe the proving of medicines is done under governmental sanction, in this country it is left to private hands.

The Gelseminum, or yellow Jessamine, is a plant growing wild all over the southern states, it is not found I believe in Europe. It may have been growing from the beginning of the world, but its value as a medical agent was only discovered recently. Accident, that great resource of medicine, brought the Gelseminum into use. The slave of a southern planter gathered the root by mistake, it was administered to his master and cured a severe fever. The eclectics adopted it. After a time it was tested and introduced to the homœopathists. They have proved it, and are still testing it. The prosecutor thinks that the profession are already well enough acquainted with it. Instead of this, those who know the most about it, tell us that the subject is far from being exhausted. What folly to think that our knowledge of any subject can be exhausted. We may be vain enough to think we know all, but to-morrow a man will rise and put to shame our idle conceits, he will show us something we failed to see.

A few years ago the defendant came to this city, he was a regularly bred student of medicine, and zealous for the advancement of his profession. In addition to his practice he has kept a pharmacy where he prepares and dispenses medicines to his professional friends, and we shall show you that he is a physician of good standing, and also that he has competent knowledge as a pharmaceutist. In the pursuit of his legitimate business he prepares a tincture of the Gelseminum from the dried root, the demand for the tincture being greater than could be supplied from the green root, on account of our national trouble cutting off the southern supply. This tincture he administers to himself, to several of his children and to the colored servant. The tincture was prepared at the ordinary temperature with dilute alcohol.

We shall prove:

1. That the Gelseminum is a well known and recognized medical agent, and not a poison in the proper sense of that term. That it is used in doses as large as one hundred drops without producing painful or hurtful effects, We have no record of any fatal case of poisoning, but if given in massive quantities, the patient is found to sink away into a profound stupor of insensibility, and present nothing of the pain, anxiety and distress, that was present in this case.

2. That it would not be possible for so small a quantity of Gelseminum to produce death.

3. That the woman died from angina pectoris, a disease characterized by excessive anguish, labored respiration and sudden termination in death.

When we establish these things it will be shown how unjustly and wrongfully the charge of manslaughter is made against Dr. Lodge. If he were a quack he might desire this prosecution as an advertisement, but as an educated physician, pursuing that practice which is the best according to his enlightened convictions, the trial is necessarily painful. Though he will most certainly go out of this hall completely justified in the opinion of every honorable man, yet the idea of such a trial as this is unpleasant. It is not of his choosing, he is accused and must defend. He will have, however, a triumphant vindication, he will be justified most completely and certainly."

Dr. Joseph A. Albertson sworn. "I am a practitioner of medicine of Detroit. I saw the colored woman before she died. Dr. Lodge told me he had given her about thirty-five drops of the tincture Gelseminum at five o'clock. About seven she came into his room hurriedly, exhibiting intense anguish, great fear and labored respiration. She had a severe suffocative spasm, struggled on to the floor, and then became insensible. I learned these particulars on my arrival. I found her lying upon the floor, extremities cold; no perceptible pulse; *eyes staring;* jaws rigid; there was a slow catching respiration for a few minutes. She died within ten minutes after I reached the room.

I am acquainted with the Gelseminum and do not think that it is a poison in the ordinary acceptation of that term. I have given two drams to a patient during twenty-four hours, and I believe that a dose of forty or fifty drops could be given without apprehending any danger."

"What is Dr. Lodge's reputation for skill and competency?"

Question objected to by Mr. Harbaugh, and objection overruled.

Ans. "I should say without hesitation, that he has, by common consent, a place in the front rank of the homœopaths of Michigan."

Depositions read.—Dr. Charles J. Hempel. "I am acquainted with the Gelseminum. It is not mentioned in any work on Toxicology as a poison. When used by homœopathists, it is given in comparatively small doses. The allopathists and eclectics use it in larger quantities. The smallest dose is about fifteen drops of the tincture, but the ordinary or normal dose is fifty or sixty drops, the dose is increased up to as high as 240 drops. In my knowledge, professional or practical, I have never known a dose from 15 to 240 drops to do the slightest injury, or in any manner produce any evil or deleterious effects. The dose of 240 drops may produce temporary medicinal effects, but nothing permanently injurious to health or life."

"State the theory and practice of the homœopathic school in respect to the provings of medicines?"

"It is a fundamental principle of the homœopathic practice, that a drug in order to cure a disease must be capable of producing an analagous or similar train of symptoms in healthy persons. This rule makes it necessary to prove on healthy persons the effect of medicines before using them as medicinal or remedial agents. This is called "proving" medicines. In proving drugs we do not use them necessarily in small doses. Some physicians commence with small doses. In proving we use material doses varying from the smallest dose up to the largest consistent with safety. The physician starting with a general knowledge of the agent, whether it is a dangerous, a powerful or a mild medicinal agent, he graduates in his provings the size of the dose accordingly, and then carefully observes or studies the effect produced both in their nature and in the organs affected, and their order chronologically. In the opinion of eminent physicians and medical schools, this practice of proving medicines by administering them to well persons is considered legitimate and proper. A physician can only know the effects of medicines by administering them to either sick or well persons. As a general rule, you cannot judge what effect a medicine will produce on the human system from administering it to one of the lower animals. It would not be safe to rely upon this. The method of proving medicines just related is recommended by all the modern professors or practitioners of medicine of distinction. Pereira, Trousseau, Sundelin, Hebra, Parkinje, Kissel and all the eminent authorities of the age approve and practice this method. We claim that it is an application to medicine of the Baconian method of induction. In Europe there are societies known as "provers' unions." They have by-laws, and are under the direct sanction and control of the governments. The most eminent physicians belong to these societies.

In my opinion as a medical man acquainted with the properties of Gelseminum, I think it would be perfectly safe and prudent to administer thirty-five or forty drops of it to an adult female. In my judgment, no evil or deleterious effects could rationally be anticipated to result from such a dose. In such a case, if death soon after ensued with apoplectic symptoms, I should not say the death was produced by the dose. I should say further, and with the highest medical certainty, that death *could not* be produced by such a dose. If death should occur soon after the administration of such a dose, it must be accounted for on some basis entirely different from Gelseminum. * * * * In experimenting with poisons, the prover would not experiment upon strangers. Prudence would require that a physician should inquire into the constitution, habits of life, &c., of the person, before he experimented upon him or her by giving them poisonous drugs."

Dr. John King, (Eclectic Professor and author, Cincinnati).

"In the ordinary acceptation of the term, I do not consider it (the Gelseminum) as a poisonous drug at all, or a dangerous one. * * * I have in my own practice given it in many cases in doses of a tablespoonful every hour, continued for several hours and with beneficial results.

Dr. H. H. Hill: In the summer of 1853, late in June or early in July, I had five barrels of tincture of Gelseminum shipped from Vicksburg, Mississippi. The boat grounded on a sand bar on the Ohio river near night. I happened to see the barrels on deck, they having been taken out of the hole in shifting freight. I requested the mate to have the barrels lowered again, as they contained medicine, and it was not safe in case the hands should get at them. The next morning another boat made its appearance, and the captain told us we had better get aboard that boat as it was of light draught. As we were getting aboard, I heard two physicians say to the captain that some of his men had been drinking alcohol or some poison, and two or three of them were about dead. They told the captain to give them an emetic. Being well convinced what they had been drinking, I told him not to do so, as they were already too much relaxed, and that they needed stimulants. During the night they had opened a barrel and drawn a bucket full, as I learned from the men, and had drank it from tin cups, it was supposed from half a pint to a pint each. They looked very much like dead men, *their eyes were closed*; circulation very feeble; no pulse perceptible; and *breathing so low that it could hardly be perceived at all.* Two of the men were taken on board the other boat and the other three were left. I went up the river with the two men and gave them stimulants, and in less than two hours they were able to walk. *They recovered.* When I got to Louisville, there was a statement in the Louisville Journal that it was supposed that the three men who were left behind were dead, they having been left in an apparently dying condition. Some three days afterwards the boat got up, and another statement appeared in the paper that stimulants had been given to them and that *they had recovered.*"

Dr. Z. Freeman.—"I am acquainted with the properties of Gelseminum. It is what is called a nervine and a relaxant. It relaxes the muscular fibre of the system and the contractile tissue, and quiets nervous irritability without producing narcotic effects. It is also in large doses a sedative. A person in ordinary health might take half a drachm two or three times a day without injury: that is, the effects of weakness, prostration, ringing in the ears, dimness of vision, &c., would be transient and pass away in a few hours."

Dr. James S. Douglas, of Milwaukie.—"Is acquainted with the Gelseminum. Its known properties do not rank it as poisonous or dangerous. It is given in doses of 40, 50, 60 and 100 drops without any observed hurtful effects. The method of proving drugs by the homœopathic school of medicine, is to administer the drug to be proved to persons of apparent health in varied dose and strength, in order to produce upon the subject all the changes and modifications of sensations and functions, that is all the symptoms which the drug is capable of producing, compatible with the safety and well-being of the subject, and carefully noting all these changes or symptoms. One dose is allowed time to exhaust its action before another is given. As drugs are found to produce different effects in large and small doses, in the concentrated tinctures and the different potencies and dilutions, a drug is not fully "proved," in other words, all its effects ascertained, until it has been proved in these various forms. Again, as drugs produce modified or different effects upon different sexes, ages, temperaments, and constitutions, a drug is not fully "proved," or all its modified effects ascertained, until it has been proved by or upon the two sexes, and all ages, constitutions, and temperaments. The principle upon which such provings are made is based upon the demonstrated fact, that drugs in comparatively small doses cure in the most direct, safe, and perfect manner diseases characterized by similar symptoms to those produced on the healthy by the same drugs in comparatively larger doses. It follows that, in order to administer drugs scientifically or successfully, we must fully understand what symptoms they produce on the healthy. Hence the necessity of provings."

Dr. John Ellis.—"In the school of medicine to which I belong drugs are given to the healthy for the sake of ascertaining the symptoms which they cause, in order that the physician may know when to give them for the relief of the sick. Such "provings," as they are called, are regarded of vast moment to the welfare of the community, and those who engage in making them are regarded as real benefactors of our race. * * * * The more violent symptoms are developed by giving concentrated tinctures and large doses of strong preparations, and this is important. It could never have been known, that Veratrum, or white Hellebore and Arsenic are the chief remedies for the cholera, if these remedies had never been taken in doses sufficient to cause vomiting, diarrhœa, cramps, prostration, and other symptoms resembling cholera. It is also very important to obtain the less violent symptoms which an article is capable of causing, as they are often more characteristic of the particular drug than the severe symptoms. This is accomplished by giving the potencies. The purposes which are accomplished by both modes are the formation of a materia medica upon a scientific basis, which enables the physician to cure the sick with a greater degree of certainty and safety than before such provings were instituted, and also enables the physician to distinguish between the symptoms caused by disease and those caused by his remedy. By the aid of the provings already made, we are able to treat the cholera, pneumonia, all febrile and inflammatory diseases, and in fact, all diseases with a success unknown before such provings were made; and what is very important, we are able generally to cure with doses so small as to cause no unpleasant symptoms, and leave no troublesome effects behind. In fact, the system of drug proving is among the most useful and important discoveries ever made in medicine."

Dr. John F. Gray.—"All drugs are injurious to health,—all are poisonous. I have not known of death being caused by Gelseminum. The methods of proving the virtues of drugs for their scientific use as remedies are two: First, with large doses, such as are commonly given in the allopathic practice; and second, with fractions of such doses. The object to be attained by the first method is the disclosure of the efforts which a healthy system would make to expel the noxious agent, such as vomiting, purging, sweating, &c., &c., with all their concomitant states of body and mind, with a view to the speedy and safe removal of similar sufferings when they arise from other causes. This class of provings I call the revolutionary, as distinguished from the second, which is called the specific. The purpose answered by the second, which is the giving of fractions and diluted forms of the doses used in the common practice, is the disclosure of the latent healing powers of drugs or medicaments which very seldom appear in the system, overwhelmed by the revolutionary doses. By the tests made with doses so small as not to awaken a powerful reaction for their expulsion, a registration of the healing virtues of drugs is attained which is indispensable for the rational treatment of chronic diseases. The first kind of trials relates more to the cure of acute and immediately dangerous maladies, and the second, as said, to the cure of inveterate and constitutional taints. My opinion is, that the provings for the first class of effects may be of Gelseminum, as of every other drug, in doses of the size commonly used in the practice of the various branches of allopathy. By "provings," when carefully and fully made in both modes, the materials for healing disease are greatly enriched; for the experience of all ages confirms the maxim of homœopathy, and without just such provings the discovery of the health restoring analogy between the powers of a drug and the cause of a disease were nearly impossible in any case, and absolutely so in a vast majority of human maladies."

David E. Harbaugh, Esq., for the Prosecution.

Gentlemen of the Jury: you have been apprized of the character of the offence with which the defendant stands charged,—manslaughter. This is quite different from that homicide which is generally denominated murder. In that, you know, there must be an evident intention to take life. Manslaughter may result from an act which is itself unlawful, or from a lawful act done in an improper manner and without due caution. You are called upon to make two inquiries: first, as to the killing of the woman by the defendant; second, are there any circumstances showing that the killing was justifiable or excusable.

If a person does an act which accelerates the death of another, it is manslaughter. A man may be laboring under an organic affection of the heart, so that in all probability he would die in twenty-four hours, and by the unlawful act of another he is slain, it is manslaughter. You comprehend it,—you understand it. The same force that would kill a diseased man would not injure a robust or strong man.

It is fair to presume, that if this woman had not taken the Gelseminum, she would have been alive and well to-day. There is no other way of satisfactorily accounting for this woman's death. The law attributes great importance to life; government is framed for its protection; when death occurs in an unusual manner, it is the duty of the officers of the state to inquire in what manner and by what means that life was lost to the country. If there is suspicion of fraud and violence, an investigation is properly called for.

Margaret Washington, a colored woman of twenty-five or thirty years of age, robust in form, of good health, pursuing her ordinary avocation on the morning of her death, never complaining, never asking for medicine; on the 15th of January, 1862, at five, P. M., was in apparent health, in possession of her physical abilities, the Gelseminum was administered to her by Dr. Lodge; at seven o'clock she was dead! Did that kill her? Are you not satisfied in your minds that that killed her?

In what way was Dr. Lodge justified or excused in giving the Gelseminum to that woman? He says it was given to prove its properties. *That is an after thought.* He knew all the effects of the drug, and he gave it merely to test the strength of the tincture made from the dry root. He took the medicine himself, and gave it to his children, and the effects produced on them showed him that the dried root could not be inert. It was unnecessary then for him to experiment upon the deceased at all, and it was rash, reckless, and careless to give her forty or fifty drops of the strong tincture he had prepared, and which acted so powerfully on himself and family. Had he any right to do so? If fatal consequences resulted, is he not responsible?

Did she die from the Gelseminum? There is something extraordinary about this; the defendant has changed his theory, an entirely different cause of death is ascribed now. Before the coroner it was dropsy of the heart and Gelseminum, now it is angin'*ous* (!) pectoris. Why has he changed it? The testimony is conclusive and overwhelming, that the Gelseminum was the immediate cause of death, and nothing else.

We say that Dr. Lodge's act is inexcusable and unjustifiable. Had not the woman taken the drug she would have been alive at this moment. Look at the circumstances and investigate them. If it caused death, he is guilty; he cannot be excused or justified; it was an unlawful killing.

Charles P. Crosby, Esq., for the Defence.

The highest object of judicial investigation is the ascertainment of truth. Courts are organized for this purpose. It is this which has called us here, and you, gentlemen, have the highest dúty to perform in deciding as to the truth in the present case.

The defendant, Dr. Lodge, is charged with manslaughter. I shall not review all the testimony. The prosecutor assumes, that the drug administered was a poison, and that there was inattention and gross neglect in its use. The evidence has shown beyond any question, that the dose which was given Margaret Washington never yet caused death in a single instance. Doses larger are given in sickness, and Drs. Ellis, Gray, Hempel, Douglas, King, Hill, Freeman, Hale, and Albertson all testify that such a quantity is perfectly safe for any one in health.

The prosecutor tells you, that Dr. Lodge's statement that he gave the drug for a "proving," was "an after thought." It is a little singular, that such a charge should be made when the facts show conclusively, that the drug was given, not idly, or wantonly, but for a purpose, and that purpose the testing of its qualities,—in other words, "proving" it. What are provings? Simply discovering by actual experiment what effects drugs produce on the human constitution, so as to obtain knowledge to guide in their administration in disease. The Gelseminum has been proved, but no physician can say he has yet ascertained all the properties of this drug. Every homœopathic physician who has attained any eminence in his profession is interested in these provings; the most skillful of them are engaged in these provings every day. And it is right and proper, that medicines should be thus tested upon persons of all ages and of both sexes, and of all conditions. There are different susceptibilities in relation to the action of drugs in different persons, and it is necessary to test the same medicine on a great number and variety of persons, and not trust or rely upon those made upon any one individual. The objection of the prosecutor, that proving was not necessary because the Doctor already knew the properties of the drug, is extremely fallacious.

The prosecutor took up this case with the assumption, that all provings of drugs or poisons is unlawful,—that the Doctor had no right to give a drug or poison to a healthy person. Twenty years ago, if a man had stated that he could send a message across the continent by lightning, he would have been deemed insane. Galileo was confined in the inquisition because he taught that the earth revolved on its axis. In London now the street railways of G. F. Train are indicted as a nuisance. 'Tis needless to multiply instances, the history of the world shows us that the pioneers of science have been the scorn and derision of the people they served. It has been so in the past, it is so now. A man's cotemporaries do not recognize his worth or services. Drs. Barrett, Lauderdale, Pitcher, and others, they do not prove medicines on healthy persons. They know all about medicines without thus testing them. What have they been able to tell you about the Gelseminum? As to the rival schools I care but little, I have a predilection for the physician that cures me, and care not whether he uses Yellow Dock or Yellow Jessamine. But I must accord to those who enter upon the laborious and self-sacrificing work of proving drugs a word of praise: I consider, that the one who proves a drug for the purpose of becoming better able to relieve suffering and cure disease, is actuated by one of the holiest and loftiest purposes that can actuate a human being.

The prosecutor tells you, that a physician is liable if he administers anything that accelerates death. To see the absurdity of this you have but to recollect the testimony of Dr. Pitcher. He is called to the bedside of Mr. Van R., who has gout, he prescribes a medicine which acted in an extraordinary manner and nearly produced death. Suppose that it had killed him? Would it not be outrageous to say he would have been guilty of manslaughter? It is utterly ridiculous to state, that a medical man is responsible for every mistake he may make. If a physician does all in his power, acts with ordinary skill and prudence, he is not responsible though death may result.

But we do not admit that the Gelseminum caused the death of this woman. Our witnesses prove that it did not, and the prosecutor's witnesses *do not* testify, that it was *the* cause of death. Dr. Pitcher says in regard to Gelseminum: "I know nothing about it." Dr. Terry thinks the post-mortem of Dr. Barrett was no examination at all, and when asked what in his opinion caused Margaret Washington's death, said finally: "I do not know." Well, I do not know,—you do not know. We bring the best scientific knowledge to bear on the subject, we bring the evidence of the most learned men, and those who are well acquainted with the Gelseminum, and these testify that the drug did not cause death.

The Prosecutor rings the charges on Dr. Hale, having modified his opinion. Dr. Hale acknowledged frankly, that he has changed his views, and gave the very best reasons for his change; these were stated fully and frankly. And Dr. Hale was right in doing so. I believe the woman died of angina pectoris,—that terrible disease that kills in an hour, and leaves no sign of its fatal course, no change of structure, and such a death, of all others the most unlike what we must suppose death by Gelseminum would be. The fact stated by Dr. Hale, that in the animals killed by Gelseminum the heart was always relaxed, and that in the case of Margaret Washington the heart was firmly contracted, is one of the most conclusive facts that we can present, showing that the woman did not die in consequence of the administration of the drug by Dr. Lodge. And Dr. Hale's testimony must have more weight than all the witnesses of the prosecution, they were all ignorant of the drug. Dr. Hale is thoroughly posted up in regard to all its properties, and is the author of a book devoted to its consideration.

The Prosecutor will have it, that the Gelseminum is a very dangerous and poisonous drug. You will recollect the testimony of Dr. Hill in relation to the Mississippi deck hands, they tapped the barrels containing saturated green root tincture of Gelseminum, drank it in quantities of half a pint and more, and yet every one recovered. How poisonous must be thirty or forty drops. Could the Gelseminum have hastened her death? Dr. Barrett testifies distinctly, that there was no organic disease of the heart, and Drs. Pitcher and Terry both say, that unless there existed organic disease, such dose of Gelseminum could not have accelerated her death. There is no danger in giving the Gelseminum in ordinary doses to persons in apparent health. This woman was to all appearance well, had no disease that could be discovered; she was a proper subject for the proving, and the giving of it was accompanied by no circumstances showing the slightest inattention or carelessness.

I intended to say but little, because the case requires no labored argument. If you take into consideration the facts and circumstances of the case, the nature of the drug, the apparent health of the woman, the Doctor's position and knowledge, and the acknowledged benefit and legality of proving drugs, you must exonerate him fully. There is nothing about the case which would justify you in giving a verdict against Dr. Lodge. Dr. Lodge has been driven into this court by the prosecution. The Prosecutor has told you he has no desire to convict the defendant, he is merely performing a legal duty. What we have to contend with here is an evil of the most fearful character—*ignorance.* This is at the bottom of the whole prosecution. If proper steps had been taken in the commencement of the case, and information sought for, there would have been no trial here. As to the result I have no fear: I should be untrue to myself, to the principle of truth and justice, if I believed for a moment in the possibility that you can render a verdict of guilty. It would be a rank infamy and shame. I leave the case to you, expecting at your hands a vindication of Dr. Lodge for his practice as a man and as a physician.

G. V. N. Lothrop, Esq.—Were it my object to obtain for Dr. Lodge merely a legal discharge, my office would be a very easy one. The law presumes innocence until guilt is proven, and as the prosecution has utterly failed to make out a case, he must receive an acquittal. That he is to be discharged was determined before I stood upon my feet. But Dr. Lodge looks for a complete justification, and he shall not look in vain for so poor a boon at my hands. Not a medical justification; were this necessary Dr. Lodge would enter upon it himself, and he would do it more amply; and, in the forum of medicine, in the world, he will vindicate himself fully. That justification is now passing, and will give this case an unlooked-for importance. It may hand down to posterity some names which would otherwise pass into oblivion, as the precious amber preserves a few flies.

The prosecution has made no case whatever,—absolutely no case. No lawyer will pretend to say, that the prosecution has made a case which we can rightfully be called upon to defend. And when the gentleman so utterly failed to prove anything against my client, I looked to him for the vindication which he should have given. In England, in a case reported by Adolphus and Baron (*Rex v. Van Butchel,* 3 *Car and Payne,* 629), where the accused, a medical man, was charged with manslaughter, the facts showed a case where physicians might differ. Baron Hallock inquired of the prosecutor (Adolphus): "Do you think you can carry the case?" He replied: "I do not think so." The case was stopped—the judge saying, that he was afraid to allow the case to go to the jury, as the idea might become prevalent, that a regularly educated medical practitioner was liable to prosecution whenever an operation failed.

In another case Lord Ellenborough decided that a medical man cannot be charged with manslaughter, unless he has been criminally inattentive. Would it not be most extraordinary that the members of a profession dealing with that wonderful being, man, should be responsible for more than the exercise of competent skill and reasonable attention? Yet in the face of these legal decisions, at this day, at this hour, the prosecutor dares to drag a skillful physician into court without one particle of proof that he has been guilty of any offence. No proof, whatever, that the drug given could or did cause death in this instance. That such a case as this should go to a jury at all, shows the frailty and imperfection of our laws. Let us look at the legal points in this case. What is the prosecution bound to do? To establish guilt, he must prove: 1. That death resulted from the administration of the drug. 2. That in its administration he showed gross ignorance, and criminal inattention. He must prove the death, trace it to the act of the accused, and then show that that act was not in itself innocent. Have they done so?

The gentleman when he moved in this prosecution, did it on the ground that the defendant's act was unlawful, that it was unlawful to administer drops to healthy persons for the purpose of ascertaining their effects upon the constitution. That position is not taken now. It is abandoned.

The prosecutor. "The question is not involved."

Mr. Lothrop. It is, directly and materially. The nature, the quality of an act is always in question. It is important that it be distinctly settled not only that provings are lawful, but that they are at the foundation of all rational medicine. Not homœopathy, allopathy or eclecticism, but medicine in the broadest, widest and most beneficient sense.

The prosecutor has not produced a medical witness who has testified that he is well acquainted with the Gelseminum, he could have produced such evidence easily, there are over a thousand physicians using it, not one of them called. Why? *I repeat they dared not.* They could not have produced such a witness without, at the same time showing that the Gelseminum did not and could not have caused the death of this woman. Is the prosecutor then permitted, in the spirit of the law, to go to the jury with such evidence, or rather without any evidence. There is one physician, however, who did give an opinioh that the Gelseminum had been a cause of death. Who gave it? Dr. Charles H. Barrett. I trust the gentleman is here. Was he warranted in giving any such opinion? On what grounds? "In my opinion," said Dr. Barrett, "the medicine combined with the dropsy of the heart produced death." Now on what sort of foundation does this young physician give such positive testimony. He does not give it hesitatingly, no hopelessness about it, he walks up to it and says it caused death. Who is Dr. Chas. H. Barrett? A young physician who has been practising medicine, he tells you for five years. The prosecutor also examined Dr. Pitcher, a practitioner of forty years' standing, also Dr. Terry, who has been practising nearly as long. I need not refer to the reputation of these gentlemen, you know how deservedly high it is, and what do they say? Does Dr. Pitcher tell you he is satisfied that it caused the death of the woman, No, and Dr. Terry says with frankness, "I do not know." Dr. Barrett had no such hesitation. "Fools rush in where angels fear to tread."

What sort of a post-mortem examination did he make. A person dies suddenly, he is called upon in his professional capacity to make the post-mortem, he is told that there will doubtless be found trouble about the heart. What does he do, after going through the brain, he looks at the stomach, then the pleura and now afterwards the heart, then he comes down to the pericardium and finds by palpitation that there was fluid within; he opened it, of course, very carefully and poured out the fluid in a suitable vessel for measurement. No such thing! He thrusts in his knife and lets the fluid escape. Now he tells you there were about three ounces of serum there. How does he know? "Guesses." He guesses at it! yet prepared to give positive testimony.

Then as regards his knowledge of the Gelseminum. He says it was the cause of death, yet he does not tell you that he ever knew it to act fatally, he does not tell you of a single fatal case of poisoning with the Gelseminum. He cannot tell you what organs of the body are affected by the drug, yet it caused, in his opinion, death here. What is such an opinion worth? It is simply worthless. And that a man should pretend to give such an opinion in an important case, without any accurate knowledge whatever, is wicked and atrocious. In this case a physician's reputation and liberty is involved. The happiness of him and his family depends upon it. should not such an investigation be entered upon with some sense of responsibility, and yet he makes an examination as was properly estimated by Dr. Terry, when he told you it was "not worth a single fig." I shall do this young man a service if I teach him: that before he attempts to give a positive opinion he shall give the matter careful examination and study.

It is not left for me to utterly confute Dr. Barrett. The very first physician the prosecutor called, after Dr. Barrett left the stand, not only destroyed his testimony, but *buries him* professionally. And Dr. Barrett's testimony is all the prosecution has to rest their case. With a post-mortem examination "not worth a fig." Dr. Barrett testifies there was no organic disease of the heart, and Dr. Pitcher tells you that in the absence of organic disease the Gelseminum could not accelerate death. Where is Dr. Barrett? Safe beneath and beyond all scientific and reasonable criticism. Dr. Pitcher leaves the case thus, the Gelseminum could have had no injurious effects. Dr. Terry agrees with Dr. Pitcher and not with Dr. Barrett. 1. He has given us this insufficient post-mortem examination. 2. He has no knowledge of the drug. 3. His testimony and opinion is contradicted by Dr. Pitcher and Dr. Terry.

The prosecution has utterly failed. They start out with the charge of gross carelessness and rashness, and have failed to prove anything resembling it. They are bound to show gross ignorance or criminal inattention, they have not proved either. They have not attempted to show ignorance. He has been but three or four years in the discharge of his professional duties here, but thirteen years ago the professors of a Medical College testified to his competence, he is known as an intelligent and competent physician, no man has dared to impeach his knowledge, and for industry, intelligence and character he ranks high with his professional brethren.

The prosecutor charges rashness. In what? What were the circumstances showing rashness? The prosecution is dumb. They have nothing to prove which shows rashness or carelessness. A drug, which from its nature is not dangerous, is given in an ordinary dose, and not a man has testified that the act of thus giving it was rash.

The prosecutor has failed to prove that the death was caused by the drug, and failed to show any imprudence in its use. Were a mere acquittal required I should stop here, but I propose to brush away one of these cobwebs, the mountains of prejudice and ignorance are slippery.

A physician attempts to prove a drug. The subject of the proving dies suddenly. He is charged with killing her. In such a case, the very first thing which a fair man would have done, would be to call upon those who have been for the past ten years in daily use of it. And a jury in such a case have a right to say to the prosecutor: As you have not brought us the testimony of any physician who has dealt with the drug you can expect nothing from us. Evidence concerning the properties of the drug exist, you could have brought it, you did not."

I am not here to procure an acquittal. Had I purposed to secure that only, Dr. Lodge would have said, "Sir, you are no adequate counsel for me, I must be justified after your forms in the fullest manner, I have been a practitioner in good standing for thirteen years, I claim that I have in this very matter performed a conscientious duty, I must go forth from this investigation exonerated." It was not necessary for him to spur me to this duty. I came prepared to strike that low creeping ignorance which was behind the prosecutor, and I have done so.

Let us look at the character of the evidence produced by the defence, not men of any one school of practice, but the best living witnesses that could be procured in regard to this drug. From Philadelphia we have Professor Hempel; from New-York, Dr. John F. Gray and Professor Ellis; from Milwaukie, Professor Douglas; from Cincinnati, Dr. Hill and Professors King and Freeman; from Michigan, Dr. Hale, all men of ability and all well acquainted with the Gelseminum, and Dr. Hale, a laborious student of this very drug.

(Mr. Lothrop read extracts from the deposition and comments upon the evidence). It is not the intention of the law to deal with trifling issues. The prosecutor has no right to present a doubtful, plausible or suspicious case, and the present one is not even one of these. It is shown that the Gelseminum is not a dangerous drug, and there was no rashness or want of precaution in its use. May it not, however, produce hurtful effects in some cases? Yes, and so may many harmless substances prove hurtful to particular individuals on account of some strange idiosyncrasy. Lewis, in his "Physiology of Common Life," tells us of a man to whom a mutton chop was poison. Coffee is a grateful beverage, I cannot drink it. It affects my nervous system so much that I have been compelled to abandon it entirely. The Gelseminum is not a poison in the legal sense. In law, a poison is a drug or substance which in small quantities will produce dangerous or hurtful effects. Arsenic, Opium, &c., are so classed as poison. The Gelseminum does not rank with these, but with Chloroform, Alcohol, &c.

The prosecutor remarks that common sense would show that such a drug as Gelseminum must be dangerous, and the dried root stronger than the green. I know not what my brother's ideas of common sense are. If we take the verdict of common observation and experience, it is that living plants are always preferable whether wanted for medicinal or culinary purposes. In regard to the Gelseminum, all the physicians who use it extensively prefer the green root tincture.

The prosecutor says when the Doctor ascertained that the dried root was not inert, he should have stopped there. Why? If he had only desired to test the strength of the root he would, but he desired to prove it and test its properties.

The prosecutor thinks that these provings are of doubtful validity and utility, but they are doubtless the sole foundation of scientific and rational medicine. I do not employ the new system, I have been attached to the old. Yesterday I asked a leading member of the allopathic faculty, "why do you not give us those provings? I think it is a reproach to your system of practice, that you do not test your drugs before you prescribe them to the sick." What was his reply? "I do, I test my drugs on my own person." That very answer showed the weakness of his school of practice. It confessed that provings are necessary and that they are not followed to an extent sufficient to make them useful. Professor Hempel claims that it is the Baconian method of induction applied to medicine. If medical practice is not to be mere conjecture, we must have a philosophical basis for it.

If it is asked why the homœopathic system of drug-proving is not adopted, we can only say that prejudice is not easily overcome. Dr. Harvey discovered the circulation of the blood and was denounced by his contemporaries. Not a physician of forty years of age who acknowledged the discovery during the life of Harvey. Inoculation was introduced by Lady Mary Wortley Montague, she practised it upon her own children and was called "an unnatural mother." Jenner, after twenty years of experiment and investigation, gave us vaccination, which has stayed the ravages of the fearful scourge small-pox, but he met with ridicule and neglect. Dr. Jenner occupied twenty years in careful study, observation and experiment, Dr. Barrett has no such difficulty in forming an opinion in relation to the action of a medicine that he knows nothing about. Jenner was execrated and ridiculed, and men equally as wise as the opponents of Jenner now ridicule "provings." The new practice is not accepted, because the old school is unwilling to learn from the new.

These provings will never cease. The scientific physician is ever on the alert for improved methods of treatment; new diseases appear, old ones change; new remedies are called for, they must be properly tested and proved to insure medical progress. I am vindicating Dr. Lodge beyond the requirements of this particular case, not for homœopathy, not for any particular school of medicine, but for myself, for my family, for my children, and for your children; we are all interested; I demand in behalf of medical advancement, that there shall be a recognition of this philosophical basis for medical practice. That provings shall be continued, not idly, not wantonly, but properly and prudently.

But I am asked what this woman died of. I am not bound to answer. Give me sufficient knowledge and I will tell you. Dr. Pitcher with all his learning cannot tell you. It is all conjecture. We believe she died of angina pectoris,—a disease characterized by severe pain, great breathlessness, intense fear, &c; the woman showed these signs, and these symptoms are never produced by Gelseminum. But conceding, for mere argument's sake, that the drug caused her death, there was nothing in the woman's condition, or in the nature of the drug, to lead him to anticipate that it would act injuriously, and he is therefore not responsible. To say that the Gelseminum caused death, is just as mysterious and extraordinary as death from angina pectoris.

Sufficient has been introduced in my argument to secure Dr. Lodge's vindication. He was acting in the legitimate performance of his duty as a physician; the drug he used was not a dangerous one, and he gave it in less than a common dose, in such a one as has not been known to produce death or injurious effects; the form of death was such as cannot be attributed to the Gelseminum, and that it is far more correct to assume that she died from angina pectoris or some other heart-disease, than that she died from the Gelseminum. Dr. Lodge is placed in an equivocal position. It is evident, that he acted with reasonable care and skill. We are all liable to be unjustly accused. If we can all justify ourselves as well as Dr. Lodge can himself, it will be well for us. I congratulate myself, that I have been permitted to bear a part in his defence when thus unjustly assailed. I am no partizan. Though bred in another school of practice, I am open to conviction. I say that Dr. Lodge has nothing to dread. He will go from this investigation with a higher character as a citizen and as a man.

Mr. Harbaugh's Closing Argument.

I confess that I feel embarassed in attempting to address you, from a variety of circumstances. The case covers a great deal of ground, the action of a certain drug, the symptoms of the woman, &c.

The law—all law, divine as well as human—attaches great importance to human life; no man has a right to trifle with it; the grand object of all government, the protection of life, liberty and property are only secondary. When life suddenly becomes extinct, the law steps in to see that no wrong has been perpetrated. If a man is found dead, the public is not satisfied unless a rigid scrutiny is made into the facts and circumstances which led to the death. In this case, upon the declaration of the accused before the coroner, upon the evidence of his friends at the inquest, I felt it my duty that there should be an investigation. Have I done wrong?

The cases from the books where physicians are said not to be accountable for deaths occurring under their use of ordinary skill and care, are all where they were called upon professionally to treat diseases, they were not experimenting. Dr. Lodge was not called upon to treat this woman professionally, she was laboring under no disease, she did not require any medical treatment, there was no occasion to give her the drug. Observe her the morning of the day on which she died. She is on the front stoop scrubbing. She was healthy.

We have had the testimony of the physicians regarding the proving of medicines. If provings are allowable, how are they to be made with dangerous or poisonous drugs? Dr. Hempel tell us that "in experimenting with poisons, the prover would not experiment upon strangers. Prudence would require that a physician should inquire into the constitution, habits of life, &c., of the person before he experimented upon him or her by giving them poisonous drugs" Now you see what one of Dr. Lodge's own witnesses says, should be the caution in which such poisonons drugs as Gelseminum should be used.

Dr. Lodge.—And Dr. Hempel says distinctly that the Gelseminum is NOT a drug of this character. Read *the whole* of what he says in relation to it.

Mr. Harbaugh continuing.—If Gelseminum is a poison, if it has energy and vitality to do what it will do, then a man who uses it should be acquainted with the condition and habits of life of the subject. They rest the defence on the ground that he is justified in giving any medical agent as an experiment to a healthy person. What protection will this give to human life? What license will you give to the men who claim this as a right? It is only the homœopaths who ask for it. Provings are not resorted to in the eclectic and allopathic schools. Shall the homœopaths have liberty and license to endanger human life and then shield themselves behind "provings!" There must be a limit to this. Let the Doctors try their own physic, I suppose they do not like it any better than lawyers like law.

We have three several statements from Dr. Lodge in regard to giving the drug to the woman. Before the coroner, of course, he made the most favorable he could make. (?). He experiments upon a healthy colored woman, in two hours she is dead. Why did he give it? He knew its properties, the whole profession knew them. He wanted to see if the dry root was inert or not, that was all. A fallacy to think the green root is the strongest, Dr. Duffield tells you it is not so. He made an extra strong tincture, double the usual proportion of root. He takes it himself and gives it to his children, it manifested its effects. Then he gives it to the colored woman. Was it prudent and cautious? Did he not know that there was danger? Had he any right to give it?

The Doctor was at fault, he was doing an unlawful act? A rash act in a rash manner! He is guilty of gross negligence, reckless disregard of human life, there is no apology, no excuse for his wantonly and recklessly giving that medicine.

After he gave the drug why did he not stay with her and watch its effects? He goes about his business as usual and pays no attention to her, until she goes to his room calling for help, "My God," &c.

The defence tells you the Gelseminum is not a poison. Dr. Barrett testifies as to its relaxing effect, that it produces dimness of sight, &c.; Dr. Pitcher, that it diminishes vitality; Dr. Duffield, that it is a poison and that the dried root is the strongest. Of course it is, do not we know that the older a pill is the stronger it is! The older the whisky the better!

Dr. Terry testifies that he heard of this drug in 1830. No new thing. It is now included in the American Dispensary *with all its effects*!

[Extract from Cyclopædia of Practical Medicine read in relation to angina pectoris, but not dwelt upon, as in reading he found it described the death of Margaret Washington very closely. Lodge.]

This thing of attributing the death to angina pectoris is a new thing. Dr. Lodge did not speak of it at the inquest.

Dr. Lodge.—I was not asked for my opinion in regard to the cause of death.

Mr. Harbaugh resuming.—He cannot escape, all will say, by the action he took, that he did not attribute her disease to angina pectoris.

Dr. Hale tells us it is not a poison. That it would be difficult to kill a person with it. He says, also, that it is a proper remedy for angina pectoris. Why did he not attribute the death to angina pectoris before the coroner, he said there, in his opinion, the death resulted from the dropsy of the heart and the *indirect* action of the Gelseminum. Dr. Barrett does not think that she could have died of angina pectoris. This mode of accounting for her death is not satisfactory, it comes in a suspicious shape.

Dr. Lodge.—Dr. Alberton has testified that he was informed by me, before the death of this poor woman, that she had these well-marked symptoms of angina pectoris, how can it, therefore, be an after-thought, as you now say.

Mr. Harbaugh continuing.—You are not a witness.

Dr. Lodge.—I am not, certainly, but Dr. Alberton was.

Mr. Harbaugh resuming.—I submit to you, gentlemen, whether Dr. Lodge was not guilty of negligence and carelessness in giving the medicine when he had received a demonstration of its force and power upon his own person. Ought he to have given it to an ignorant woman without sitting by her and watching her. Take the case and dispose of it as you think proper. I have given my view of it. I am sustained by the testimony and the law. My duty has been discharged. You will do yours to the public and the interests of the prosecution.

Charge to the Jury.—The defendant, Dr. Edwin A. Lodge, is charged in the information before you, with the crime of manslaughter. It is not claimed by the prosecuting attorney that the defendant intended to take life, or even to do the deceased any bodily harm, but it is urged that the defendant in administering Gelseminum, in the manner and under the circumstances, was guilty of a wanton and reckless act, and exhibited a mind regardless of consequences. As you have observed, the defence set up is two-fold—first, it is denied that the deceased came to her death by means of the Gelseminum; and secondly, conceding that the Gelseminum was the immediate cause of her death, it is denied that the giving of it in the quantity, and for the purpose shown in the evidence, was such a wanton and reckless act as makes the defendant amenable to the law for the crime of manslaughter.

In relation to the appropriate rank of Gelseminum in the *Materia Medica*, I must leave that to you to be decided as one of the facts in the case. But I will not withhold the expression of my own decided conviction, based upon the testimony, that the drug is a valuable remedial or therapeutical agent, all of whose properties are not yet known, but about which enough is known to authorize it to be ranked as a very valuable medicinal agent in cases of fevers, convulsions, &c. I think this is fully established by the evidence of the medical gentlemen who were sworn on the trial. However, I do not mean to be understood as taking this question from your consideration, but I expressly submit it to you as a fact to be determined by you in the case whether Gelseminum is a poison as claimed by the prosecution or not.

The purpose for which the drug was administered has been stated by the defendant himself. He informs you that it was administered for the purpose of *proving* its properties. This system of *proving* medicines is very extensively adopted in all the schools of physic, but it is a distinguishing feature in the homœopathic system, of which the defendant is a practitioner. The administration of the Gelseminum, its properties, and the object of its administration considered, is claimed to be justified on the highest scientific and humanitarian principles. The right of a practitioner to test or *prove* on well persons the properties or qualities of drugs is claimed to be indisputable. This question is before me and must be passed upon. It is to be observed, that it is not claimed that a physician has the right to administer his medicines indiscriminately, without regard to time and place, or the health of the person upon whom the experiment is made, or the nature of the drug administered. Under the restrictions hereafter to be noticed, I think, the right of a physician to test or *prove* medicinal agents on healthy persons cannot be seriously questioned. Unless the science of medicine is to be considered at a *stand-still*, I cannot perceive how the right of practitioners to experiment in some form can be denied. Experiments have been made, are made, and always will be made, for otherwise the science of medicine would be in the crude and imperfect state in which it was left by Galen and Hippocrates, instead of the enlightened and advanced state in which we find it at the present day. Experiments on the lower animals while useful, and often leading to the most important results, are by no means satisfactory and conclusive as to the effect which drugs, or remedial agents, will have on the human system. Some of the wild berries, for example, are fatal to human life, but are eaten by birds with impunity. Some also eat certain roots without experiencing apparently any evil effects, which are known to be fatal to human life. The best, most accurate and reliable tests are those made upon the human system. This view is at once so just and obvious, that it has commended itself to the governments of Europe, where "*Provers Unions*," as they are called, for proving medicines, are established and are conducted under the direct sanction of public authority. Such is the case in Austria, Prussia, Germany, France and other smaller states of the continent. We are told that accidents in these provings are of very rare occurrence.

By experiments, many valuable remedies have been discovered. The mode of treating small-pox has been entirely reversed, and there can be no doubt that the present system, called the *cooling*, in contradistinction to what is known as the "*smothering process*," is infinitely more successful than that formerly practiced. The properties of Chloroform were discovered in this manner by Dr. Simpson. Examples might be multiplied, but they are not necessary for our purpose. While accident may discover to us many valuable remedies, it is chiefly upon experiment that we must rely for progress in the future. But, while I concede the moral and legal rights of a practitioner to experiment or prove for the benefit of science and humanity, I wish to be understood as enunciating this principle with the restrictions and conditions now to be enumerated.. There are limits beyond which law and reason will not permit the experimentatist to go. First, no man has the right to experiment upon another without his consent.

Secondly, the person making the experiment or *proving* should freely and candidly inform the person upon whom the experiment or proving is to be made, what are the known properties of the drug, whether a poison, or otherwise, and whether dangerous or nauseous. It is the duty of the *prover* to administer the drug with a due regard to the age and health of the person, and to exercise such care and precaution as the nature of the experiment demands. It would not be legal to experiment upon a child, or an insane person, because in these cases there can be no intelligent consent, and no due appreciation of the risk or danger incurred. With these conditions and restrictions the right to experiment, as it seems to me, cannot be denied. To apply these principles to the case before you. If you shall find the properties of the drug administered, the purpose for which it was given, and all the circumstances of the case, considered, that the defendant acted in such a wanton and reckless manner as to indicate a regardlessness of human life and health, and that the deceased came to her death from the Gelseminum, then you should render a verdict of guilty. But should you find all the circumstances considered, that the defendant used all proper care and that his conduct did not exhibit recklessness, then, even though death was caused by the Gelseminum, you should acquit, of course; if the Gelseminum did not cause the death of the deceased, your verdict should be not guilty.

After a short absence, the jury returned into court and rendered a verdict of not guilty.

Reviews and Bibliographical Notices.

Homœopathy in Venereal Diseases. By Stephen Yeldham, M. R. C. S., Surgeon to the London Homœopathic Hospital, Fellow and Vice-President of the British Homœopathic Society, &c. London: H. Turner & Co., 77, Fleet-Street, E. C., pp. 120.

The author of this new treatise on venereal diseases gives in a few words in the preface, the following reasons for writing a small work on a very extensive subject: "English homœopathic literature is almost silent on these diseases. Following in his earlier practice of homœopathy, the few scanty directions contained in "Jahr," the author found that the results were not so superior to those of allopathy as he had expected. Some modifications in the treatment were, evidently, necessary. Careful observation convince him that those modifications must be made in the doses of some of the medicines administered internally, and in a more free employment of external remedies. For many years past he has adapted his practice to these views, and the results have been most satisfactory." The results of his treatment and the principles by which he has been guided in reaching them, are now presented to the public; and he claims to be actuated by no motive but "an earnest desire to assist in placing the treatment of these diseases on a more simple and rational footing than they at present occupy." The book is a small one for so great a subject, but it is evidently the product of a large experience, and will be well received by the profession. We make an extract on the

Treatment of Secondary Syphilis.—The diversity and obstinacy of these diseases render their treatment one of the most difficult, and at the same time one of the most interesting subjects that can engage the attention of the medical practitioner. It has engrossed the study and research of many of the most eminent surgeons, from John Hunter's time to the present day; and truly, when we consider the effects of the syphilitic virus, not only upon the constitution of the patient himself, but, possibly, also upon that of his offspring, it is difficult to overrate the importance of the subject, or to name any other more worthy to occupy all the care and skill which the profession can bring to bear upon it.

"It was at one time the almost universal persuasion that secondary syphilis was incurable, and even now this opinion has its adherents. On the other hand, there are those who, more sanguine than wise, do not hesitate to promise their patients a speedy and permanent cure. The truth, as in most other cases, lies between extremes. There is no doubt that in recent cases of secondary disease, occurring in good constitutions, and where the system has not been saturated with Mercury, complete and permanent eradication of the symptoms may be safely prognosticated. On the other hand, it is equally certain that, when the taint has once entered the circulation of persons of depraved, scrofulous, and broken down constitutions, it may but too confidently be predicted, that, though secondary symptoms may, for a time, appear to be successfully combatted, relapses will occur with more or less violence for many years, and, possibly, for the remainder of the patient's life.

"The treatment in former times, of primary syphilis with destructive doses of Mercury, by inducing the very state of the system I have just described, had much to do with the development of secondary diseases in their most inveterate and intractable forms. Modern science, better instructed, obviates much of this mischief, by avoiding the use of Mercury altogether in treating some cases of primary ulcer, and by giving it in more moderate quantities, when it is employed. Still, I am convinced there is room for yet greater improvement, and that homœopathy points out the way to it; and to this important point we now proceed to direct our attention.

Secondary syphilis consists in the introduction of a poison into the blood; and the cure of it, in the neutralization of that poison. The attainment of this object must be sought in the careful, judicious, and prolonged use of medicines; and in the adoption of such measures, hygienic and dietetic, as are best calculated to sustain the patient's constitutional powers. First, then, as regards medicines. It is beyond a question that, as with the original sore, so with many of the constitutional symptoms which result from it, *Mercury* is one of the most efficacious remedies. We constantly meet with cases in which the primary and secondary diseases coëxist, and in which the Mercury given for the one, cures the other at the same time. Several examples of this are reported further on. There is commonly in these instances this advantage, viz., that Mercury has not been previously administered, and it is precisely in such cases that the curative action of the medicine is not decided. The same thing holds good with reference to the secondary symptoms. If Mercury has been given to any considerable extent for the cure of the chancre, the benefit to be derived from its administration in the treatment of secondary symptoms will be much less marked, than in those cases in which it has been given in very minute quantities, or not at all. In either of the latter instances, unless there exist some special circumstance to forbid its use, Mercury is often of the utmost value in combatting the earlier secondary diseases of the skin: the erythemal papules, and squamæ. Over the more inveterate eruptions, it has comparatively little power. When, therefore, a well-marked and undoubted case of secondary eruption presents itself, following closely, or at no great distance upon the primary disease, and in which the patient has not been mercurialized, it is well to commence the treatment with one of the lower dilutions of the Iodide or Bin-iodide of Mercury—the second or third decimal, in two grain doses, twice a day. This should be steadily persisted in until the eruption has vanished, or until it appears certain that the medicine has effected all the good that can reasonably be looked for from it. In many constitutions, these eruptive disorders are remarkably obstinate, and no remedy will exercise a sudden influence over them. The Mercury, having had a fair trial, if it fail in effecting a complete cure, another medicine must be resorted to, and the *Kali-hydriodicum* claims our next attention. This is a remedy of undoubted power in treating the secondary diseases of syphilis; and in the majority of cases of skin affections, as well as affections of other tissues, its aid is required in expediting or completing the cure. In obstinate cases, especially those occurring in scrofulous constitutions—and they are the most obstinate—it is a good plan to give this medicine alternately with the Bin-iodide of Mercury, not in alternate doses, but during alternate weeks—*i. e.*, the *Kali-hydriodicum* one week, the *Mercurius-biniodidus* the next, and so on. Excellent results will often spring from the alternate action of these and other remedies; and the more so, the less rapid the alternations. To obtain its full curative action in syphilitic diseases, the Kali-hydriodicum, like the preparations of Mercury must not be administered in too small doses. I am in the habit of giving two grains of the Salt three times a day, in aqueous solution. The principal indications for its use are: a scrofulous and debilitated constitution; enlarged glands in the groin, the throat or neck; the previous exhibition of Mercury in excess, marked by red and inflamed gums, sore throat, foul breath, nocturnal bone-pains.

Iodium.—Preparations of the simple metal may be used with advantage, in the quantity of five drops of the second decimal tincture, in water, three times a day. But on the whole, the compounds of Iodine, Mercury, and Potash, are to be preferred.

Acidum-nitricum is another medicine which has long enjoyed a widespread reputation in the cure of secondary symptoms. My own experience has not inspired me with unbounded confidence in its powers, in the early secondary eruptions. Like Kali-hydriodicum, it is distinctly indicated in cases where patients suffer from the effects of over-doses of Mercury; it is an excellent antidote to that metal; but as, under homœopathic treatment, these cases of poisoning do not occur, and when homœopathy shall become the sole system of medicine, they will cease altogether, the question arises, what, under such circumstances will be the proper sphere of Acidum-nitricum in the treatment of secondary syphilis? It appears to me that the grounds on which it is prescribed, in the early skin eruptions, are somewhat slender. I have administered it in many cases, but the results if not equivocal, have been by no means striking, nor to be compared with those obtained from the Iodides of Mercury and Potash.

Cases of ulceration of the mucous membrane of the throat, mouth and nose, appear to me to be the most appropriate for the use of this medicine in the early secondary diseases. It is also strongly recommended in the treatment of *condylomata*, such as spring up on the penis, and about the anus. It should be administered in from five to ten drops of the second or third decimal solution, two or three times a day. Less doses, if not inoperative, are less efficacious.

Miscellaneous Items.

Transactions of the Illinois Homœopathic Medical Association at its Eighth Annual Meeting in Chicago, May 21st and 22d, 1862.

FIRST DAY.—*Morning Session.*

THE Eighth Annual Session of this Society convened in the HAHNEMANN MEDICAL COLLEGE, Chicago, at 10.30. A.M., May 21, 1862. In the absence of the President and Vice-Presidents, the Recording Secretary, Dr. Leonard Pratt, called the meeting to order. Dr. I. S. P. LORD, of Chicago, was chosen Chairman, *pro-tem.*

Some thirty members were present at the organization of the meeting, and others, with resident physicians and pupils came in during the day.

Dr. I. S. P. Lord presented an original essay on the Pathology of Intermittents. The reading of this paper was listened to with much interest, and gave rise to an animated discussion by different members of the society. (*Vide* printed Reports and Discussions appended to the Minutes.)

On motion, adjourned to 2, P.M.

Afternoon Session.

The discussion of Dr. Lord's paper was continued.

On motion, a copy of this paper was requested for publication.

A communication breathing forth the warmest interest in the welfare of the Society, and its whole membership from the President, Dr. G. Y. SHIRLEY, of Jacksonville, was read by the Secretary. Ordered on file.

The Chair appointed Drs. Anthony, Holt, Burbank, Colton, and Green, a committee to nominate officers for the ensuing year, the Committee to report to-morrow.

On recommendation of the Board of Censors, Dr. W. H. White, of Chicago, was elected to membership.

On motion, the following medical gentlemen, guests of the Association, were elected to Honorary Memberships therein:

EDWIN M. HALE, M.D., of Jonesville, Mich.
T. S. PATCHIN, M.D., of Fond du Lac, Wis.
H. PEARCE, M.D., of Green Bay, Wisc.

On motion, adjourned to 8, P.M., to hear the Annual Address.

Evening Session.

The Meeting was called to order by the Chair at the hour appointed. The ample lecture-room of the college was filled with medical practitioners and students desirous of enjoying the treat in store for them. Dr. E. M. HALE delivered an address upon *Remedial Analogues*, which was listened to with unwavering attention throughout, and was heartily applauded at the close.

On motion, a copy of Dr. Hale's address was requested for publication with the *Transactions* of this Association.

Previous to adjournment, Dr. Ludlam, Chairman of the Committee of Arrangements, invited the audience to an excellent collation and entertainment prepared for them by the physicians of the city of Chicago.

Adjourned to 9 o'clock to-morrow (Thursday) morning.

SECOND DAY.—*Morning Session.*

Association convened at 9, A.M. Dr. Lord in the chair.

Dr. R. Ludlam proposed that the society appoint a Committee to nominate the Annual Committees on Scientific Subjects, whose duty it shall be to report at our next meeting.

The Chair appointed Dr. Ludlam said Committee on Nominations.

Dr. D. A. Colton presented a report upon Diphtheria. The hour for adjournment having arrived, a discussion upon Dr. Colton's interesting paper was made the first business of the afternoon session.

The Secretary presented an invitation from C. S. Halsey, Esq., Homœopathic Pharmaceutist, for the Members to a carriage-ride to Camp Douglas and other points of interest in and adjacent to the city. (Some thirty-five physicians subsequently accepted this very liberal invitation, and, as a consequence, enjoyed themselves exceedingly.)

Adjourned to 2.30, P.M.

Afternoon Session.

2.30, P.M. Association called to order by the Chair.

Upon motion, a copy of Dr. Colton's report was requested for publication.

The discussion upon this paper was opened and participated in by Drs. Small, Patchin, Kellogg, Pratt, Holt, McAffee, Burbank, and others. (Full notes thereof will be found appended to Dr. Colton's essay on Diphtheria.)

Pursuant to request, Dr. E. M. Hale read an article on the Pathogenetic and Therapeutical value of the *Euphorbium-corollata*. A vote of thanks was tendered Dr. Hale for the same, and a copy requested for publication.

Dr. C. A. Jaeger exhibited a vial containing a tincture of the *Plantago-majoris*, a remedy reputed to be a very successful one in the cure of certain forms of chronic diarrhœa. His friend, Dr. Ulrich of Chicago, thinks it almost invaluable.

The Secretary read a letter from Dr. E. A. Guilbert, of Dubuque, Iowa, tendering his resignation as a member of this association.

Upon motion, Dr. Guilbert's resignation was unanimously accepted.

Prof. Ludlam, read an essay upon *Physiological Dietetics*.

Dr. Pratt moved to request a copy of this paper for publication, and also that the author be allowed permission to print it in any of the medical journals. Carried.

On motion, a Committee of five was chosen to report upon Dr. Brittingham's Provings, the method in which they were made, and their probable value and reliability,—a majority of said Committee being empowered to recommend their publication, or to reject them on behalf of the Association. The Committee consisted of Drs. D. A. Colton, C. A. Jaeger, E. M. Hale, L. Pratt, and A. E. Small.

On motion, a vote of thanks was tendered to Mr. C. S. Halsey for the pleasant ride afforded the Members during the interval between the morning and afternoon sessions of the Society.

Adjourned to 8 P.M.

Evening Session.

The Association met again at 8, P.M., Dr. Lord in the Chair.

Dr. Ludlam reported that the following Committees had *pledged* themselves to report upon the subjects specified at the next annual meeting.

Drs. L. Pratt,	*Clinical Cases.*
H. L. Foster,	*Dysentery.*
A. E. Small,	*Phthisis Pulmonalis.*
E. McAffee,	*Diphtheria.*
J. C. Burbank,	*Clinical Cases.*
D. A. Colton,	*Diseases of the Brain.*
I. S. P. Lord,	*Therapeutics of Intermittent Fever.*
R. Ludlam,	*Medical Toleration.*
E. M. P. Ludlam,	*Dispensary Practice.*
W. Hanford White,	*Some of the Eclectic Remedies.*
H. Pearce,	*Fevers.*
E. M. Hale,	*Ovarian Diseases and their Treatment.*

On motion, said Committees were duly elected.

An interesting letter from Dr. R. B. Clarke, of Racine, Wisc., upon Homœopathic Medicine and Surgery in the Army, was read by the Secretary.

Ordered on file.

The Committee on Nominations, Dr. Anthony, chairman, reported the following ticket:

For *President*, D. S. Smith, M.D., of Chicago.
1st *Vice-President*, I. S. P. Lord, " "
2d " W. C. Anthony, M.D., of Princeton.
3d " D. A. Colton, M.D., of Chicago.
Recording Secretary and Treasurer, L. Pratt, M.D., of Rock Creek, Carroll Co.
Corresponding Secretary, C. A. Jaeger, M.D., of Elgin.

Board of Censors.

Drs. R. Ludlam, W. Burnside, E. McAffee, H. L. Foster, J. C. Burbank.

Upon motion, this report was received and the Committee discharged.

It was then *Resolved* unanimously, that the foregoing members be declared elected officers of the Association for the coming year.

Dr. H. Pearce moved a vote of thanks to the retiring President, Dr. I. S. P. Lord, for the able and efficient manner in which he has presided over our deliberations. Carried.

Dr. W. H. White offered the following:

Resolved, That a warm invitation, and solicitation also, is hereby extended to members of the profession in the neighboring states to join our Society, and unite their efforts with ours in building up the interests of true Medical Science. Carried.

On motion, Dr. R. Ludlam was chosen to assist the Recording Secretary in arranging and publishing the Transactions.

The President *elect*, named the following, as a

Bureau of Provings.

Drs. C. A. Jaeger, D. A. Colton, A. R. Holt, W. Burnside, and A. R. Bartlett.

The Minutes were then read and approved.

On motion, the Association adjourned to meet in the Hahnemann Medical College, Chicago, on the third Wednesday in May, 1863.

L. Pratt, M.D., *Recording Secretary.*

Rock Creek, Carroll Co., Ill.,
May 28, 1862.

[In every regard the Eighth Annual Meeting of this body of medical men was a successful and profitable one. Some forty-five physicians in all were in attendance during its sessions, among whom were Drs. Anthony, Holt, Hale, Patchin, of Fond du Lac, Wis., U. R. Patchin, Small, Shipman, I. S. P. Lord, McAffee, Burbank, Smith, Jaeger, Pearce, of Green Bay, Wis., Green, Burnside, R. Ludlam, Cooke, F. A. Lord, Foster, White, Clark, of Louisville, Ky., Gridley, of Kenosha, Wis., Kellogg, Rawson, Levanway, E. M. P. Ludlam, Mohr, L. B. Larkin, F. H. Benham, Kendall, Page, Bunker, Ballard, and others. The Annual Address was for the first time upon an exclusively professional theme; and the discussions more than ever practical and interesting.—L. P.]

Discussion upon Dr. Lord's Paper on Intermittents.

Dr. E. M. Hale. We know that there is a class of remedies which act primarily upon the ganglionic system, and these are those which have been used most successfully in the treatment of intermittents. Quinine and Arsenic spend their force upon the nervous centres. They may produce a congestion of some of these centres, and thus be capable of creating in the healthy subject symptoms analogous to ague. This explanation of their *modus operandi* would agree with Dr. Lord's theory, that intermittents arise from a retardation of nerve-force in the ganglia, and also lead us to their recognition as the best remedies to be employed. Arsenicum and Nux-vomica act in a very direct manner upon these vulnerable points. The treatment of agues has been the opprobrium of the profession.

Dr. R. Ludlam. If we pursue this inquiry, may we not discover, for example, that there is some remedy which acts directly upon the cardiac ganglia? And would not a disorder of the heart—as palpitation, dyspnœa, angina pectoris—occurring in the paroxysm of an ague, deserve to be considered as the leading or characteristic symptom, determining the specific remedy to be given? I am at present treating a case of intermittent fever in which, with each return of the paroxysm, the patient experiences great suffering from what would appear to be an attack of acute bronchitis. These troublesome symptoms subside with the sweating stage, and leave a distinct interval of apparent health, but return as regularly as does the chill itself. Should I address my remedies to the cure of this case through the pneumogastric plexus and the pulmonary ganglia, or have these pectoral symptoms no significance whatever?

Dr. Hale. I have seen cases marked by paroxysms of heat and chill which were periodical in their return, without pain or any abnormal sensation or disorder than ophthalmia, and this would disappear entirely after the paroxysm.

Dr. Ludlam. Would you address your medicine to the cure of the ague through that particular symptom?

Dr. Hale. The remedy should be addressed to the specific lesion. The ganglion of the organ which develops the most abnormal symptoms is most diseased, and the remedy should be selected with direct reference to those symptoms. If the heart-symptoms enumerated occur in conjunction with the fit of ague, we give Arsenicum because of its specific influence over disorders of that viscus.

Dr. T. J. Patchin, of Fond du Lac, Wisc., being called upon by the chair for his experience in the treatment of this disease, reported that there were no agues in his district of practice,—he had no experience to relate—preferred to listen.

Dr. Jæger. I desire that we discuss some *practical* question.

The Chair. The question *is* a practical one, and it is the duty of the members to discuss its practical bearings. We can all profit, no doubt, from such an exercise.

Dr. Jæger. We have had very obstinate agues on Fox River, but of late they are more manageable. The principal remedies used are Arsenicum, Eupatorium and Sulph.-china. This last we sometimes employ in half-grain doses, repeated once in three hours. I give Bryonia in the chill, if it predominates; but Eupatorium if the heat prevails. For gastric symptoms he sometimes gives Ipecac. Has used the Gelseminum with good success in infantile remittents.

Dr. T. J. Patchin desired to know if the one-twentieth of a grain of Quinine in trituration would not prove as effectual as one-half a grain of the crude drug? He had treated agues in New-York State, prior to his removal to Wisconsin, in which the one-tenth to the twentieth of a grain was sufficient to prevent a return of the paroxysm. The cure was not a radical one, however. To make it certain, he would give one of the lower attenuations of Arsenicum. Dr. P. inquired if any of the members had employed the Cedron in intermittents; and if so, with what result? He treated a case which had failed of relief at the hands of an eminent physician. Gave two or three drops of the Cedron, 1, and there was only one paroxysm afterward; got well at once.

Dr. Pratt. Has once or twice succeeded with the Cedron, but desired to become better acquainted with its pathogenesy before he could place any considerable reliance upon it as a remedy.

Dr. Kellogg. Has given the Cedron with good results in a few cases. Used it empirically upon the recommendation of a friend. Appeared most successful in chronic cases. Gives it in the second or third centessimal dilution.

Dr. U. R. Patchin. Lives on the Mississippi, where a large tract of land is yearly overflowed with water. In the timber-land adjacent to the "bottoms," which are overflowed, agues yield readily to Arsenicum and Ipecac.; but out of the timber, both fail, and nothing but Quinia in large doses seems to answer the purpose. In what are known as "congestive chills," it seems impossible to get on without this salt in what are called appreciable doses. Gelseminum frequently answers well as an intercurrent remedy. In case of profuse perspiration, we are frequently obliged to resort to some form of Mercurius, or to Nitric-acid.

Dr. W. C. Anthony. I cure all my intermittents with Arsenicum, Nux-vomica, and Sulph.-china, at the second trituration.

Dr. D. S. Smith. Have had an experience of some twenty years in treating agues homœopathically, and used nearly all the remedies in the various forms and combinations. Lately I have been employing Arsenicum and Gelseminum in the first decimal dilution. Have given Quinine in substance but once in two years, and then in grain doses. In agues among children I succeed with Arsenicum and Ipecac. In a few chronic cases I have resorted to Carbo-vegetabilis, 6, with benefit.

Dr. Larkin. Perhaps as large a proportion as one-half the cases which I treat in La Salle County are agues. I give Ars., Bryonia, or Ipecac., first decimal dilution, during the paroxysm, and Phosphorus, 6, in the interval. I cure every case, and do assure you, that in my district of practice, this treatment is "specific."

Dr. Pratt. Are the lungs especially apt to be implicated?

Dr. Larkin. There is much trouble with the lungs. I confess to Phosphorus as my hobby in the treatment of intermittents. My attention was directed to it by a neighboring physician, Dr. ——, who reported an entire success with it in this disease.

Dr. Jæger. A family in the vicinity of Elgin has been in the habit, for three or four years, of sending to me for "ague medicine." I did not at first know what the medicine ordered—China, 3, Bell., 3, and Merc., 6—was designed for, but furnished them as desired. Subsequently I was assured, that they cured every case of ague which happened in a large family circle, and among the neighbors. They never failed. The parties lived upon the banks of Fox River, in the vicinity of a mill-pond and three distilleries, in a district where agues are rife.

Dr. Holt. Treats very few cases, but is sometimes called to treat a very obstinate example of this disease. Is as successful with Ars. and Nux-vomica as with any other remedies. If there is dizziness and vertigo, with a sensation of falling during the chill, gives the Gelseminum. Has cured some cases with Bell. and Ipecac. In one case where remedies had been given without the desired effect, I gave one globule of Aconite, 30, and there was no return of the paroxysm for some six weeks. When it returned, I gave three globules of the Aconite, 200, with the effect to make the cure a radical one.

Dr McAffee. In my experience Ars. 3, and China in the mother tincture, are the most reliable remedies.

Dr. Burbank. Arsenicum is the only reliable remedy with me.

Dr. Dunham. My best remedies for the ague, while practicing in Missouri, were Arsenicum, Quinia, and Ipecacuanha.

Dr. T J. Patchin. I would inquire how we are to reconcile this jumble of the members' experience with the principle *Similia Similibus?*

Dr. Pearce, of Green Bay, Wis. I have had a great deal of ague in my beat within the last two years, and, although somewhat inexperienced, have made some cures. I arrested the fit in two cases with the Gels. and cured the case with Ars. Dr. P. was surprised to hear members speak thus of a resort to large doses; felt a great interest in this discussion and in the welfare of the Society,—came a great way and at considerable expense to attend its meeting. Thinks it no marvel if the employment of such massive doses of Arsenic shock him, as he never gets below the sixth attenuation, and fears that even that may be too low. Arsenic, given in such quantities gets hidden away in the body, burrows in the tissues, is cumulative, and by and bye manifests itself, causing disease, after the ague has long since passed away. One prominent writer says that it is a wonder that patients thus treated do not drop down dead. In children I give Ars. and Bryonia, and sometimes Acon. 3. I never give Mercurius to children in Agues.

Dr. U. R. Patchin. I am not accountable for the action of medicines, and if I find that large doses cure where small ones do not, I can see no good reason why I am forbidden to use them. In the most severe cases of congestive chills, I divide ten grains of Sulphate of Quinia into three doses and give it in the apyrexia. A colleague gives twenty grains divided in the same manner.

Dr. Pratt. I am inclined to agree with my friend Dr. Pearce, in regard to the dose. If the medicine selected is perfectly homœopathic, it will require but a small quantity to effect a cure. There is a power in the trituration which is not to be found in the crude medicine. We should, it strikes me, investigate, examine, and not be too hasty in our conclusions. There can be no doubt but that some physicians have succeeded in curing intermittents with the two-hundredth attenuation, and why should not others also?

Dr. Jaeger. My friend, Dr. Ulrich, of Chicago, makes his cures with the eighteenth potency, and no other, no matter whether he employs Ars., China, Ipecac., Nux-vomica, or any other remedy. He treated me for the ague. Found me taking the one-twentieth of a grain of Quinine at a dose, with frequent repetitions. I was growing daily weaker and weaker under its use. The Dr. cured me with the 18th of China. He runs all his medicines up, and employs them in the aforesaid potency, more especially in fevers.

Dr. Pearce. Dr. Pulte once informed me that he was most successful in treating agues with China in the mother tincture given in wine. He does not say so, however, in his book.

Dr. R. Ludlam. Has found the Verat.-alb., often useful. Is frequently indicated in the more severe and obstinate agues bordering upon the "pernicious" or "congestive" type. Home-made agues are, however, very rare in Chicago. In a few cases, I have given a trituration of the Citrate of Iron and Strychnia with good effect. It is my habit, in a majority of examples, to give Bry. 3, *to shorten the chill*, Gels. *in the hot stage*, if very extreme in degree or duration, and Arsenicum *in the apyrexia*. In the intermittents and remittents of children I find the Gelseminum almost a specific

Dr. Colton. Seldom resorts to Quinia. Has found the Verat.-alb., even in the tincture, very useful. Thinks Ars. an excellent remedy, but prefers it in the *fourth* trituration. Gels. an invaluable medicine for the relief of some of the febrile symptoms. Gives it in doses of two to five drops of the first dilution.

Dr. White. I have treated this disease in every way, and used almost all the remedies, Ars., Nux-vom., Xanthoxylin,—the last with very good effect. Nux in the third dec. trituration frequently cures. In congestive chills, after the second paroxysm, I have resorted to stimulants, brandy, Ammonia, or anything I can get hold of. I use Ars. in the third trituration, also Veratrum-viride. Gels. may be given in old, chronic cases with the best results.

Dr. E. M. Hale. Lives in a most malarious district. Would relate his experience from the beginning. Was once a high dilutionist and thought that I cured agues with the higher protencies. At length I had a number of cases of congestive chills and lost them all. I then adopted the practice of giving Quinia and brandy in the intermission, and Ars. Verat. &c., during the paroxysm. This became the treatment in all future cases, for I lost no more. The efficacy of the high dilutions in genuine agues may well be questioned. We can never determine from the character of an ague when it will cease, and of course, cannot tell whether a medicine has cured it, or stopped the paroxysm. So well is this understood in ague districts that some families never give or take anything, but, as they say, "let it cure itself." I have heard it asserted, and upon the best authority, that tying a string around a tree was an infallible specific for ague. In Germany they use the Cimex (*bed-bug*) as a remedy, swallowing it whole, with a raw egg as the vehicle for its administration. Setting the clock back and thus deceiving the patient with regard to the time of day, or onset of the paroxysm, has cured it. But we can hardly rely upon such means for the cure of disease.

We can only determine that the so-called cures by Phosphorus and Aconite are cures indeed, after a long and abundant experience. A few cases only cannot warrant any reliable conclusions in their favor. How shall we reconcile such result with those following the use of twenty grains of Quinine?

In the treatment of agues, we must take the group of symptoms, and adapt our remedies as in every other disease. In a given district of practice, the symptoms of ague are much the same and there will of course be but little variety of treatment required. In the analysis of symptoms we must recognize those which are primary from those which are secondary, and then endeavor to adapt the remedy to the significant points of difference. In this connection I beg to refer the members to my monograph on the primary and secondary drug-symptoms. Take Quinine, for example. It is indicated in the chill only in large doses. In the heat, in small doses, only, while the very reverse is true of Arsenicum—small doses in the cold stage and apyrexia, and large ones in the heat.

I have given Xanthoxylin and Hydrastin as exceptional remedies. The eclectics use the latter in doses of one-fifth to the one-twentieth of a grain with excellent results.

Dr. Pratt. Would it not be desirable if the profession would collect and record their observations upon the modified forms of ague peculiar to different localities? I apprehend it would do much to enlighten us in this matter.

Dr. Ludlam. We should know more of the topography of the country in trying to estimate the conflicting testimony of members as to the relative value of this or that remedy, or of this or that potency of the same remedy. There are a thousand local contingencies in the way of establishing a successful system of therapeutics in almost any disease, and this is especially true of the ague.

The President being called on for his experience, said: I have been practicing in ague districts thirty-three years and witnessed most varieties of disease and treatment. Quinine had just taken the place of bark. We, allopathists, gave a grain at a dose in the apyrexia, and repeated every three, four, or six hours. Had fair success, at least if the patients had the means to foot the bills.

I had the ague myself. Contracted it in the western part of Chatauque County, N.-Y. It stuck pretty close one year and a half, recurring every day or every other day. Sometimes it left for a week or two after a few doses of Quinine. At length it came at nine in the morning and ten in the evening, twice a day. Not having the means to support twins, I took sixty grains of Quinine at one dose, just as the heat was coming on, or at 11, A.M. I got rid of the ague for two years, but got something worse—a disposition to congestion of the brain, headache, dizziness. Heavy feeling as if lead was lying in the cerebellum, with dull aching; loss of memory and an annoying, disagreeable ringing, buzzing, roaring and singing like crickets, in my ears, to this day. The dose was too large, and yet it was given at the right time. So far as ague is concerned all the books held that Quinine was a febrifuge. If so it should be given in the chill just before the onset of the heat. It should never be given in the apyrexia. The only difficulty in the way of giving it in the chill is the nausea which then occurs. If there is no nausea, it should be given an hour before the heat comes on.

The practice in the course of years increased the dose from three and five grains to ten, fifteen, and twenty. The custom was to divide thirty to sixty grains into three doses. Give one just before the heat comes on, or, if called too late, during the heat. If the heat continues more than an hour and a half, give a second dose. If either of the doses is vomited, give the third. This was the practice twenty-five years ago in the north-west, except with a few old fogies, who continued to give Calomel, Valerian, Dover's Powder, sweet spirits of Nitre, &c., making sore mouths, hypochondriacs, and long bills. It was prompt and effectual in all fevers except the typhoid. It was sure death in cerebral and pulmonic typhoid, and dangerous and generally fatal in the abdominal. I would frequently, when called to a case of remittent fever, ask: "Will you be cured in two days or eight?" "I can't afford to lie here. Get me well as quick as you can." "But if I cure you quick there will follow congestion of the organs and some ten or twenty years hence you will die of consumption, or brain or liver disease." "Can't help it. Go ahead." And we did go ahead, and the consequences have followed. Many and many a one have I seen go down, and they are yet going.

I think that two five-grain-doses, taken at the beginning of the heat, will have more remedial effect than thirty taken in the interval, and that it is safer to take twenty grains in the heat than five in the apyrexia. I do not give it at all now. Have not given any in several years. Sometimes find China indicated but not often. Most intermittents yield to Ars., 2d and 3d trit. and 30th dilution. I should think that the 30th trituration would answer well, but never have used it. I have used occasionally Tart.-em. and Ipecac. Frequently Nux in second or third trituration. Have given Cimex and Eupatorium. Don't amount to much.

I spent a good deal of time thirty-two years ago in gathering cob-webs for ague. Those of a small black spider were accounted best, were most abundant in cellars. The bite of that spider is accounted poisonous, and possibly the cob-web may be medicinal, though I really never could see why. However, I satisfied myself that the fools were not all dead. I do not think that a pound would produce any effect, though a man could hardly gather an ounce in a day, perhaps not in a week.

I have seen and known of almost everything being given for ague, and accredited for its cure. One of the worst cases I ever saw came into my hands in 1836. A young man from Ohio came to my house in Illinois. Had it two years, —a paroxysm every day except a week at one time, and two at another, both occurring after taking large doses of Quinine. Was emaciated, exsanguinated, had cough and diarrhœa, and recently lost his appetite. The chill came on at eleven, A. M., and would shake him out of his chair on to the floor. Had tried every medicine he could hear of. I altered the clock without his knowledge, but the chill recurred at the minute. He said, that he once tried a cure that he had heard of: when he first felt the chill he started for the bed, and just as he was about to jump on the bed, plunged under it. The theory of cure was, that the ague would have no suspicions of the intention, and if the dodge was quick, would land on the bed alone, while the patient was under it. He said his ague was too d——d smart for that. I tried every available means for three weeks. He was no better, and very little worse. Finally he insisted on being bled. I was astonished at his presumption, but he was determined he would bleed himself if I did not do so; would kill himself any way, if he did'nt get better. I told him I would as soon think of bleeding a cabbage-stalk; he had'nt any blood in him. I would not take the responsibility;—if he would take it all himself I would let him have a lancet, and show him how to do it. I did not think he would try it. He wanted to know the best time. I told him, just before the chill. The next day, just before we expected the chill, I prepared his arm and gave him the lancet;—he stuck it in and started a little blood, but did not reach a vein. Seeing him so determined, I took the lancet and opened the vein. A few drops of thick, black blood oozed out. The chill came on while I was trying to get the blood started. I finally got a gill,—not more. The chill was light; had very little heat; some sweat; recovered rapidly, and had no more ague.

Anything will cure ague; but AN AGUE requires *the specific.*

Discussion upon Dr. D. A. Colton's Paper on Diphtheria.

Dr. U R. Patchin cures all his cases with Acon. and Bell., with the topical application of the *Tinct. Ferri-mur.*

A Member. The Proto-iodide of Mercury and Iodium are better remedies in my hands.

Dr. A. E. Small. Has had considerable experience in the treatment of diphtheria. His remedies did not differ from those ordinarily employed. Was of opinion that it would be generally conceded that this disease and croup in its various forms were essentially the same.

Dr. T. J. Patchin, of Fond du Lac, Wisc., would like to inquire if the profession were really disposed to regard the croup and diphtheria as one and the same disease? He thought he had discovered some points of difference which were of considerable practical importance. Thus, in croup the convalescence is well marked and rapid,—not deceptive, insidious, and protracted, as in diphtheria. In croup the whole disease seems localized in the throat and trachea; there are no constitutional symptoms indicative of extreme debility, &c. In diphtheria the general symptoms are no less marked than are the local ones,—the poison affects the foot as much as the throat; every part, every tissue of the body is more or less implicated. Again, I had a case of diphtheria which recovered with paraplegia for a sequel. Did any one ever know such an affection consequent upon the croup?

Dr. —— remarked, that Bromine promised to become a useful remedy in diphtheria.

The Chair. Bromine is not homœopathic to diphtheria. It does not produce similar characteristic constitutional or local effects.

Dr. Small. I made some remarks with reference to the distinction attempted to be drawn between diphtheria and croup. In my opinion they are both the same disease. If, in the cases referred to, there were typhoid symptoms, the same low symptoms happen in croup, and they are common to both. Their pathology is nearly the same. I have sometimes thought that there was a poison, but not a specific one. The moment the blood fails to be furnished with air in requisite quantity and purity, respiration becomes abnormal and suffocation ensues. This is what happens in croup, and will account for all the toxical symptoms in diphtheria. The blood cannot be perfectly vitalized unless respiration is normal, and non-vitalized blood cannot support respiration, and is essentially a poison. Disease is not an entity,—it is a derangement of the resident forces. There is a very wide difference among cases of croup, as well as in diphtheria—a great difference between spasmodic and membranous croup. The first yields to Bryonia, Ipecac., Sambucus, &c. But in the membranous variety most of these remedies fail;—even Tart.-emetic and Iodium are sometimes powerless, and the patient will sink away until life becomes extinct. I have never got any satisfactory action from Bromine in any case of diphtheria whatever.

Dr. T. J. Patchin. Is always ready to yield his opinion, if in the wrong. Still he desired to call attention to what appeared to him to be other points of diagnostic difference between these two diseases. There is the peculiar putrid odor of the breath, which all must have noticed in diphtheria, and which is wanting in croup. In the former there is no dyspnœa until the membrane has encroached upon the air-passages. Indeed, this symptom may be entirely wanting in the worst cases, and death may and does occur in some cases without any difficulty of breathing whatever. Not so with the croup. In diphtheria death comes from a poison which circulates with the blood, since the symptoms of all the cases declare it. In croup about one case in one hundred is of the membranous variety, and only about one in one hundred of that small proportion is fatal. Can any one claim a like success in the treatment of diphtheria?

Dr. Pratt. I remember one case in which the patient died after the throat symptoms had entirely subsided. It seemed to sink from pure debility. There was no healthy nutrition of the tissues; food did no good, although enough was taken. Another died from a swelling of the parotid;—there was little constitutional disturbance, no fever, and no other lesion, and yet the patient died. Sometimes the sequelæ resemble those of scarlatina.

Dr. R. Ludlam was of opinion that the symptoms of diphtheria were such as must necessarily arise from septic causes poisoning the blood. Had been much interested in remarks just made upon the differential diagnosis of diphtheria. In addition to the points of difference between it and croup, already specified by Dr. Patchin, it seemed to him that the fact of hereditary influence in determining a liability to croup, while such predisposing causes seemed possessed of little modifying influence over an epidemic of the malignant diphtheria, should be taken into account. Furthermore, it is a recognized fact, that a liability to repeated attacks of the croup is by no means uncommon,—indeed in this country is a very ordinary result of one such illness. Well authenticated cases of diphtheria, occurring the second time in the same person, are exceedingly rare.

Dr. Patchin. I had a case of diphtheria which was to all appearances convalescent, and yet it soon after died of lumbar abscess,—was to all intents and purposes poisoned through and through.

Dr. Small. Had seen such cases, but only in scrofulous habits of body. must think that scrofula is at the bottom of it.

Dr. Kellogg. Has witnessed like examples simulating scarlet fever. In cases assuming a putrid character, has great confidence in the super-chlorate of Potass. It corrects fœtid exhalations, &c. As Dr. Small has said, they die sometimes from sinking. After the patient has become in a measure collapsed, with a blue skin, I have given the Carbo-veg. in the third centessimal trituration, with prompt relief. Probably a higher potency would be still better. A single dose will change the color of the skin in a very short time, and almost magically.

Dr. Pratt has employed the Carbo-veg. in a few cases with similar gratifying results. When beginning with febrile symptoms, gave Acon. and Bell. Some cases had debility, languor, and typhoid symptoms from the commencement. This is unquestionably a constitutional disease affecting all the organs and tissues more or less. It is attended with great prostration. Has seen a case of total paralysis of the organs of speech; another has recovered with blindness, another with strabismus, &c., &c. Merc. in some form, and Rhus-tox. were my chief reliance in these adynamic cases.

Dr. D. S. Smith. I have noticed the great diversity of treatment for this disease by physicians present. Every one should be governed by his own experience. If I read the report of the American Institute upon diphtheria, and adopt it as final, I shall be left without any treatment whatever, and if I depended upon others, I should do nothing. I have my own treatment, and my own experience to guide me in it. I do not say that it is better, but that it is best for me. I am on the whole *quite satisfied.* When one is successful in the use of remedies in a given disease, there is no good reason to change. I use Merc. Prot.-Iod., Apis-mel., Cantharis, Baptisia, Rhus, and Ars. I attach much importance to the last of these, and give it every day and through the whole case. In the inflammatory stage I give Aconite, and no one wants to treat it without Aconite. I do not consider croup and diphtheria the same disease. Croup is always inflammatory throughout its whole course, while diphtheria is not so regarded.

Dr. I. S. P. Lord. Before seeing a case of diphtheria, I made up my mind that it was a myth,—a sort of cross between scarlet fever and croup, as the scarlet rash stands between the scarlet fever and measles. Have since changed my mind. Believe it to be a disease "*sui generis.*" wherever it came from.

Dr. Jaeger, inquired if any of the members had used the Kreosote as a gargle in this disease? The eclectics had employed it in his vicinity of practice with almost unqualified success.

Dr. Patchin. I have used it, and with good results.

Dr. I. S. P. Lord. (Gave a verbal account of two or three cases of diphtheria which it has been thought advisable to insert in detail. Secretary.)

My first case was Belle E——, aged four and a half years. I was called

March 11, 1861. 7, A.M.—Had the measles two weeks ago;—a hard croupy cough came on as the eruption began to disappear. Has taken Acon., Phos., Cham., and Kali-bichr., without much effect. Was taken worse in the night. Respiration is very difficult and labored. Seems as though she could not breathe long. Supposed it to be croup. No heat, but cold skin with sweat. Gave Bromine, 1, in watery solution every ten to twenty minutes. 12, M. Coughs up a little frothy mucus every few minutes. The breathing is getting worse every hour. At times, seems as if she must suffocate. Breathing is thick—asthmatic. Tries to vomit. Ipecac., 3, three drops at intervals of ten minutes. Examined the mouth; could not see down beyond the tonsils; on the right one was an oval yellow patch, five-eighths of an inch long and three-eighths wide. It appeared like an oval slice of ice-cream, two lines or more thick, and sunk more than half its thickness into the mucous membrane; surrounding it was a bright pink strip, a line wide and perfectly defined like a ring. The mucous membrane around was nearly natural in color, but the tonsils were much swelled, and with the velum completely closed the fauces. Patches of like form and character, but less size, extended forward over the roof of the mouth, and two or three lay upon the other tonsil. There was not much fœtor of the breath.

1, P. M.—Worse. Alternate Apis, 1st dec. trit., with Biniodide of Merc., 2d dec. trit., a grain every ten or fifteen minutes; each dose of the Biniodide mixed with two grains of Sac.-lactis.

9, P. M.—Has vomited blood. Is weaker and worse. Lach, 8 trit., one grain every fifteen minutes. Died a few hours after. The measles had been epidemic for two months.

It seems from a review of the case, that I should have given Ars. But I knew she would die if I did. I knew that *it* could not save her. I did not know as much of the Biniodide or Lachesis.

Case 2.—Nina E., a sister of Belle, was taken with measles on the 14th, two days after. Saw her at 8, A. M., when the eruption was just making its appearance. Had a chill at seven, and the skin was still very blue. Having some heat.

15. 7, A.M.—Has sweat some. Some heat, no chill. Bry. 3, and Puls. 3, six gl. 2d dil. Merc. 6, and Puls. 3, six gl. every two hours.

16. 6, P.M.—Throat so sore that she cannot swallow, though she wants to eat. Has been up and about the house most of the day. Sweats a great deal, with increased heat of the skin. Tongue clean. Continued Merc. and Puls.

17. 6, P.M.—Eruption well developed and perfect on the face. No mistake as to its being measles. Continued.

18. 9, A.M.—Convalescent. Has a very hoarse harsh cough. Nit.-ac., six gl. every four hours.

29. 11, A.M.—Has been hoarse and had a cough ever since she had measles. The hoarseness increased yesterday, and can hardly speak so as to be heard now. Cough is decidedly croupy now. Skin is cold and covered with a sticky clammy sweat. Several lumbrici passed from her since yesterday. Cold sores on the middle of the upper lip. Pulse and respiration natural. Eyes very dull. Merc.-viv. 2; Kali-bichr. 2; Cent one gr. every hour.

30. 6½, P.M.—Seemed improving till 11, A.M., when during a fit of coughing she threw up a lump of yellow matter, as round and as large as a common sized filbert. At 1, P.M., got another paroxysm, and after it, for the first time, had disturbance of respiration. The breathing was as difficult and labored as in a bad case of croup, and yet it did not seem to be exactly like croup after all. It was more like croup and asthma together. Bichr. 1, one gr. and Sambucus, six gl. alternate every hour.

31. 11, A.M.—Was quiet and slept very well, though the breathing was bad. Face and neck puffy, and glands swelled. Forehead appears œdematous and shining as if greased. Says it hurts her throat to cough, but does not pain her to swallow. Cheeks are red, and body covered with a warm sweat most of the time. Gets up and walks about, but the respiration makes her appear frightful. There is a patch on the right tonsil exactly like that in the mouth of her sister; and the whole appearance is the same. Some fœtor of the breath, but not very perceptible. Bichr., 2, one gr. every hour. Merc.-viv., one gr. every four hours. Has a good appetite and, what is more singular, can swallow well.

April 1. 9, A.M.—Respiration the same. Perhaps a little thicker; more asthmatic. Very little cough, and that sounds as if the larynx and trachea were full of loose, thick mucus. Sweats freely. Tongue coated and, at the root, in contact with the tonsils, it has the appearance of being covered with large unhealthy granulations of a pale red color. Is still up about the house. The patch on the tonsil seems smaller and the membrane more loose on the ulcerated surface. There seems to be a patch behind the other tonsil, and an occasional glimpse behind the vellum reveals a ragged condition of the mucous membrane. Cannot speak loud enough to be heard. Had some heat last night. Appetite good. Bichr., 2, one gr. every half an hour.

1, P.M.—Respiration better since 11 A.M., when she had a very hard coughing spell, and vomited, and threw up some large pieces of membraneous matter. Had Dr. Coe in council. Advised to continue same treatment.

6, P.M.—No change. Little fœtor of the breath. Bichr. 2, 1 gr. every hour. Emet.-tart., 1st dec. trit., 1 gr. in half a tumbler of water, a teaspoonful every hour.

2d. 8, A.M.—Rested well last night. Respiration better, though very bad, except when asleep. A hard stool at 1, A.M. The narrow red ring around the diphtheritic patch is fading out, and the edge of the ulcer seems to be healing.

Had some heat this morning, and skin is warmer than natural now. Face is covered with drops of sweat. Hurts to swallow. Continued Bichr. and Emet.-tart.

6½, P.M.—No change. Continued medicine.

3d. 9, A.M.—Slept very well. Respiration thick, asthmatic, and croupy, as ever. Occasionally coughs up large hard masses of thick, yellow mucus or membraneous matters. Some of them are more than an inch long and half an inch broad, and as thick as the cartilages of the trachea. Is up about the house most of the time, though the breathing is really frightful. Some heat. General warm sweat. Has been sleeping now for some time, and sweats most when asleep, while she breathes the best. Sometimes, while asleep, the breathing becomes nearly natural. Snores loudly in her sleep, which is not natural.

4½, P.M.—No great change. Is awake. Sweats only in the face. Continued.

8½, P.M.—Breathing has been very labored for some time. Cough is constant and dry, and more croupy. Don't expectorate any thing. (Agg. of medicine?) Mur.-ac., 10 drops in a large tumbler of water, sweetened with honey, a teaspoonful every five minutes, till cough is looser. After the second dose the cough was looser, and during a severe coughing fit, in which she was almost suffocated, she threw up a very thick and tough piece of membrane, an inch long and more than half an inch wide. Immediately the breathing became easier, and she fell asleep. Alternate Bichr. and Mur.-ac. every hour.

4th. 9, A.M.—Slept very well, and some of the time breathing was nearly natural. About 7, A.M. had another hard fit of coughing, and threw up a large piece of membrane and some blood. Breathing has been better since, but generally it is such as to threaten immediate suffocation. Eats yet.

7, P.M.—Skin hot and dry, Had another turn of suffocating cough with the usual result. Is just having another, and the breathing is really frightful. I never saw any thing worse in the worst case of croup. Got up a little membrane and a spoonful of stringy mucus. Rad.-acon., 0, 1 drop to 10 spoonfuls of water, alternate a teaspoonful with 1 gr. of Bichr. every half an hour, till heat is gone. Then resume the Bichr. and Mur.-ac.

5th. 8, A.M.—Slept well, and no heat after the second dose of Aconite. Did not breathe as bad as usual, till 3, P.M., when respiration became worse, and what it is now, like a bad case of croup: dry, whistling, husky, and terribly labored. Skin moist as usual. Respiration 30. There is a little returning brightness of the eyes. They have been dull and expressionless till to-day. There seems to be a slight improvement every way, but it is undefinable. Alternate the Acon., 0, and Bichr. every half an hour.

7, P.M.—Breathing bad, was nearly suffocated in getting up a piece two inches long and nearly an inch wide. Bichr. and Emet.-tart. as on the 1st inst.

6th. 2, P.M.—Breathing worse, if possible. Green, ghastly appearance of the face. Conium, 3, 6 gl. every half hour.

8, P.M.—Worse. Green, death-like, ghastly face. Eyes protrude, and face like a corpse. Body and limbs purple. General coldness. Bichr. every half hour 1 gr., till better or dead!

7th. 2, P.M.—Seemed to be in a suffocating condition, till 4 this morning. Threw up some membrane every time she took the medicine. Has got up a large quantity of stringy mucus. Could be pulled out in strings a yard long. Breathing continued better, till 1 P.M. Since then it has been getting a little worse. From 7 to 10, A.M., did not give the medicine but once, she was so much easier. Since 12 have given it every half hour again. Respiration is whistling and dryish, but the cough is loose. Skin is warm and moist, and cheeks are red again. Face appears a great deal more natural. Eyes are bright, and has eaten some to-day.

8, P.M.—Pulse 112. Respiration 22. Much better, though still labored and croupy. Not much worse than an ordinary case of membraneous croup. Sleeps a good deal, but snores less as she breathes through her mouth for the first time during her sickness. No unnatural heat. Has eaten something. Continued Bichr. every hour.

8th. 11, A.M.—Had a terrible storm last night, with alternate rain and snow, during which she was very restless, and the breathing got bad again. Had some general heat at 3, A.M. Respiration is now labored, whistling, and dry. Bichr. every half hour.

6, P.M.—Breathing much the same. Pulse 112, but stronger, more volume and firmness. Eats as usual. Continue Bichr. and repeat as the breathing seems to require.

9th. 1½, P.M.—Slept six hours this morning without medicine. Did not wake at all. Taken medicine every two hours since. Respiration a little husky and labored yet. Very little cough the last twenty hours.

10th. 8, P.M.—Improving. Convalescence was slow. The Bichr. was continued at long intervals, and whenever there was any disturbance in the breathing or aggravation of the cough, repeated frequently. The voice was entirely lost, and she never spoke above a whisper for three months. After that, it gradually improved, and after a year was perfectly recovered.

When the Bichr. was given with intervals of an hour or more, the patient uniformly got worse. The cough was almost constant, except in the night, when asleep. It ran up from a slight hacking to suffocation, which was only prevented by a means which I have purposely omitted to mention that I might direct your attention more particularly to it. After the 3d inst., whenever the cough became dry, and respiration, whistling, and suffocation seemed imminent, inhalations of the Bichr. were used with prompt relief, of course, it was only temporary, but it was a respite. But for it death must have ensued. It did not fail in a single instance of easing the breathing and loosening the cough, and ejection of membrane or large quantities of stringy mucus followed. The Mur.-ac. seemed at first to answer the same purpose, but the subsequent trials showed that it had no such effect. Perhaps its inhalation would have answered better.

The method was simple. There was a small tin tea-pot in the house, a plaything for the children. It would contain half a pint of water. Two or three grains of Bichr. 2, were put in it and half a tea-cup of hot water poured on. The vapor passing from the spout was inhaled. I do not think that any medicines given in this case, but the Acon. and Bichr., had any good effect.

I was so well satisfied of this that in all subsequent cases I have trusted entirely to the Bichr. as the specific remedy, and have had no reason to repent it. Other remedies may be required, but that is *the remedy*.

I will give another case in point.

1861.—Nov. 7th. 8, P.M.—Was called to see John Mc——, Irish, 3 years old. Has been sick several days. Was cold as ice (so reported) at first, and could hardly be got warm. Been treated by allopaths. Taken a great many medicines, but Chlorate of Potass. was mostly depended upon. Been getting worse from the start. Had a council of 2, of 3, of 4,—and pronounced hopeless. Was abandoned to suffocation and death.

The Pulse is 120. Anxious, ghastly look. Very restless, rolling, tossing, rising up, and dashing himself down, in his efforts to breathe. Mouth open wide, but nostrils pinched. Face sharp, and cheeks purple, as are the hands and nails. Skin of the body red. Eyes staring. Delirium and a considerable heat. Aphonia. Can speak only in a whisper, though delirious. Respiration and throat much like Nina E——, and Belle E——, only not as bad. The light, however, was not sufficient to examine the throat well. No one knows when he passed urine last. One thinks it was last night. Bichr. 2, 1 gr., Bell. 30, 6 gl., alternately every hour.

8th. 8, A.M.—Seems a little better. No stool. The friends clamor for "physic." "Shut up, or I abandon the case." Is more quiet. Breathes better. Face is bloated and rounder, and skin of the forehead œdematous, yellow, and shines as if greased. Lips dry and covered with brown scabs. Patches in the throat dark or ash-colored. Tongue has a thick brown coat. Has been cold and blue every morning about 2 o'clock, till this morning, and not after. Sweat the last part of the night. Last night had no chill, and the skin was only warm after 4, A.M. Some appetite. No urine. Canth. 1, 1 drop every three hours. Bichr. 2, 1 gr. every hour.

3, P.M.—No urine. Appears much the same. Is no worse.

10, P.M.—The father came in a great hurry and reported that he was dying. Was very cold and blue. Told him that Johnny could not die. Sent Ars., 30, one drop to be taken every ten minutes, till the heat returned. Then return to the Bichr. and Canth.

9th. 8, A.M.—Seems brighter and perhaps better than last night. Took only 5 doses of Ars. No urine. Abdomen soft and natural to the feel. No distention of the bladder. No delirium. Breathes better. Canth. 2, one drop every half hour, till he passes urine, after which Bichr. every hour and Ars., 30, every three hours.

10th. 8, A.M.—About 9 o'clock last night passed a large quantity of clear, inodorous urine. Seems to have been just secreted. No stool. Has appeared better except the breathing, which is worse. More hoarse. Cough more frequent and croupy. Lips and tongue nearly natural. Patches in throat appear more healthy. Heat natural. Face more bloated. Nurse says, "about three hours afore he makt wather, he lay dead as a log and did'nt stir at all. And I said Johnny, Johnny,—time an' agin, and he did'nt stir. And thin he was cold and blue, and his tongue and breath was cold, and shure, and I knew he was dead; but the Docther, and that's you, said he could'nt die, the blessings on ye', for a life long an' afther, and so I knew he would'nt And he did'nt—and there he is eating; and so he is, an' ye'll live now, Johnny, dear, wont ye'?"—He was evidently better. Still I could not account for the return of the labored breathing, and aggravation of the croupy cough. On inquiring I found that, in accordance with the usual Irish medical practice, they continued the Ars. and Canth. after the indication for the last had passed away. They did not give the Bichr. at all. I left all the Bichr. I had with me, enough to last two days, and directed a grain every half hour, gradually increasing the interval as the breathing improved, but never beyond two hours. I promised to send a supply as soon as I reached home, in Chicago.

The next day I sent the medicine by Express, but the package was mislaid in the office. The father called. "It was not there." Next day the medicine was out. Called again. "It had not come." Boy got worse. Called once more, and insisted that it had come. At night the boy was nearly as bad as at first, so far as the breathing was concerned. Was getting rapidly worse. The father became almost frantic. He went to the office and was so violent that a thorough search was made, and the medicine found. It was immediately given, and promptly relieved the breathing. The convalescence was rapid, and no other medicine except Canth. was needed. Comment is unnecessary.

Discussion upon the Treatment of Delirium Tremens.

Dr. I. S. P. Lord. Has treated in all some thirty or forty cases. Uses the cold *douche*, pouring cold water from a height upon the head until the pulse is reduced to about forty in the minute. If the symptoms return, repeat. Never lost a case. Since becoming a Homœopathist, has employed Belladonna and Opium. With the use of water as aforesaid, one day or so is sufficient to bring them out of the difficulty.

Dr. Small thought cold water a better *preventative!*

Dr. Jæger treated one patient who was remarkably susceptible to ill effects of Alcohol, some dozen times in five years. Twice used only simple mesmerism, and successfully. Once a violent paroxysm was relieved, and the patient put quietly to sleep in a quarter of an hour by passing my hand, first wet in cold water, over the forehead and face. He slept for three hours, awoke once, and then slept the balance of the night. Next day worse, escaped, got more whiskey,—more mesmerism, relieved. The next year he had it again, implored for the passes, and said he would give fifty dollars for the same kind of relief. Another violent case of four days' duration, which had baffled the skill of several doctors, the patient not sleeping a wink, although he had taken large doses of Morphine, or Opiates, was relieved by Ignatia. A single dose procured him sleep, and he convalesced at once.

Dr. A. E. Small. Is of opinion that different cases require very different treatment. Once treated a peculiarly aggravated case in Philadelphia. It was a second attack, the first having been cured by the patient's drinking Wheeling ale. Nux-vomica was the successful remedy. Treated a case during the present week in which also the Nux-v. had a most happy influence. Two years ago I prescribed for an army-lieutenant who had delirium tremens. Had not slept for eight consecutive days. Several physicians had been in attendance. Was called to see him in the evening. Gave a single dose of Bryonia. Patient went to sleep in about half an hour, and slept nearly all the night. He recovered upon this single remedy. Perhaps, all things considered, Nux-vomica is most reliable, but none of our remedies are specific to the difficulty.

Dr. Lord. Desired to know the remedial difference between Nux-vomica and Beer!

Dr. D. S. Smith. I use Nux, Bry., or Opium. One well-marked case was cured with the 3d of Opium.

Dr. Pratt. I have cured one remarkable example of this disease with Lachesis 18.

Dr. Pearce. I am confident the gentlemen present will discover in the pathogenesy of Lachesis that it promises to be of great service in delirium tremens. Have treated several cases successfully with it alone.

Dr. Hale. Cimicifuga 1st, five drops once in two hours cured one case. In another, where it and other remedies had failed, the Gels. succeeded. In yet another, where the patient was quite furious, maniacal, thought that devils were after him, hoofs, horns, and all, I had tried mesmerism and cold *douche*, &c., without effect. Remembering notes of a clinical cure in Braithwaite, treated by large doses of Tinct. of Digitalis, I gave him a tea-spoonful. Three doses restored reason, but not until he had experienced a sort of convulsion. All was right for some months, when he had another fit of the *tremens*. Being absent from home, he sent for an Allopathist, was ill for three or four days. My student gave him the Tinct. Digitalis,—another terrible convulsion, followed by entire relief. In a third attack the same result has followed the employment of the Digitalis.

Dr. I. S. P. Lord. To be efficient in this disease, the cold *douche* as ordinarily applied would be of no avail: a stream of water, larger or smaller, must be poured from a considerable height upon the back of the head and neck. The effect will be to reduce the pulse to any number of beats that you wish, and render the patient more quiet and less refractory: while a repetition will insure sleep.

Dr. Cook, Physician of the Coral Islands.

In one of the Caroline group of Coral Islands, lately visited by the Austrian frigate Novara, Dr. Scherzer found a Scotch physician, Dr. Cook, established and in good practice. He had been on this Island a quarter of a century; his hut was divided into three apartments. The outer room was his surgery, containing the usual glass bottles, &c., of his profession, and every thing was neat and orderly. Dr. Scherzer describes him as quite a philosopher. "Nothing surprised him—nothing roused him." There he lived, his face pale, faded, expressionless, with a long silvery-gray beard, clothed in a coarse woolen jacket, with a huge broad-brimmed, worn out straw hat pulled low over his forehead, quite regardless of the great outer world and all its concerns.—*Reporter*, July.

Logwood as a Disinfectant or Antiseptic.

The Paris correspondent of the British American Journal says: the Academy of sciences has received a paper from Dr. Desmartis, announcing that logwood (Hæmatoxylon Campeachianum) possesses the same disinfectant properties ascribed to the *coal-tar* and in a higher degree. Dr. Desmartis "had several cancerous patients under his care, all presenting large ulcerous sores, emitting a most nauseous smell. An astringent being considered expedient, a pomatum composed of equal parts of logwood and hog's lard, was applied to these sores; whereupon, to the Doctor's surprise, the fœtor disappeared completely, and the emission of pus was considerably diminished. To complete the evidence, he suspended the use of the Pomatum for a few hours only, when the offensive emanations immediately recommenced, and the purulent secretion became again abundant. Logwood, as now ascertained, causes gangrene, especially that of hospitals, to disappear, as if by enchantment. Dr. Desmartis has also found it efficacious in preventing or stopping the erysipelas which often occurs after amputation, or the infliction of other wounds, and is a source of constant anxiety to the surgeon. It entirely removes the putridity of ulcerous cancers, emitting characteristic effluvia, and in short, of the most fœtid sores. This substance also possesses the advantage of being capable of mixture with hæmostatic remedies, such as Ergotine, Perchloride of Iron, Persulphate of Iron, &c. It may also be used as a powder or lotion. The extract of Logwood, which is much used in dyeing, and is very cheap, is soluble only in warm water.

Pleuro-Pneumonia in Cattle.

At the July meeting of the Philadelphia Society for the promotion of agriculture, Dr. Jennings made a report on this disease, in which he stated that "the disease is spreading very rapidly through Burlington county, New-Jersey, he had been called upon to see two herds in which nine cattle had been attacked, three or four of which he considered must die." It had already spread into the region of Mount Holly. It had been recommended by a committee from Massachusetts, that cattle beginning to show this disease "should be fattened and sold to the butchers." He also said that "the markets had been flooded with meat from diseased cattle for years past." When the disease made its appearance, the dairymen sent their cattle to the butcher, so that it might not become known that the disease was among their herds. In England, he stated, the sale of this meat, after the apparent recovery of the cattle had been legalized, and also in Massachusetts. Dr. Jennings believed that after the cows have been once attacked there was no perfect recovery.

Portable Styptic.

The *Moniteur des Sciences Médicales* recommends to soak *amadou*, or German tinder in a solution of perchloride of iron of a density of about 1·250. It should then be dried in the sun, and rubbed between the hands to restore its suppleness and porosity. Small pieces applied to leech-bites soon stop their bleeding. They may be held in their places by strips of plaster.

M. Bretonneau.

The following extract from the funeral oration by a favorite pupil, M. Velpeau, gives a just tribute to a man of genius to whom medical science acknowledges many obligations.

"His great reputation was due neither to a fortuitous combination of circumstances, nor to the influence and interest of the great. The celebrity he attained was unsought by himself, and was unconnected with either academical triumph or popularity-hunting. Absorbed by the pursuit of science, and at a distance from the social crises of his generation, he acquired fame unwittingly. In order to be just to Bretonneau, his character should not be estimated by the common standard of men; his life, his thoughts, his actions were wholly unlike those of others. His hours for work were irregular, as were his times for repose and refreshment. When an object or occupation arrested his fancy, his pursuit was incessant and untiring. While engaged in the investigation of typhoid fever and diphtheria he would turn his back on those who spoke to him of any other subject. If the bell rang, he would say, 'go, my friend, and inquire whether the case be one of either sore throat or fever: if so, I shall attend immediately; if otherwise, say that I am not at home.' Did he on returning from his morning visit to the hospital, by chance step into his garden, his patients were no longer thought of, and his mind became absorbed by his vegetables, his grafts, and his settings. In operating for cataract, he found that the form of needle then in use was inconvenient; he immediately set about inventing another (that now commonly employed). For fear of being misunderstood by the workman, he insisted on forging it himself, and for three days could not be persuaded to leave his workshop. A similar occurrence took place with regard to certain vaccine tubes. When interested in a case he would remain for hours at the bedside of a patient, returning as often as he believed any knowledge was to be gained from the study of the particular malady. His object was neither the gratification of vanity, nor glory; but simply the extension of science and truth. During the epidemics of sore throat and fever, his brother practitioners, in refutation of his doctrines, mentioned that the morbid appearances observed by Bretonneau at the hospital differed from those noticed in private practice. To obtain autopsies with the consent of the friends of the deceased was most difficult; nevertheless, Bretonneau was determined to carry his point: and, with my assistance, at night, no less than thirty-six post-mortem examinations were clandestinely obtained by exhumation of the dead. On more than one occasion our profanations were suspected, and we were fired upon. I have every reason to remember the circumstance, from the fact that I still possess a shot in the thigh in *souvenir* of my nocturnal expeditions. Bretonneau was triumphant; the scientific problem was solved; the pathological lesions occurring in private practice were found to be identical with those observed in the hospital. Bretonneau had an investigating and independent mind, at once deep and penetrating. He was an accurate, sagacious and original observer. Whatever he touched he fully explored; and nothing left his hands without being modified, improved or completed. In conversation he was rich in instruction and full of practical deduction. It might have been expected that such a man would die master of a great fortune. But no; money was as immaterial to him as glory; and his charitable liberality was too well known not to be profited by."

The Dead House of the Vienna Hospital.

The general hospital attached to the medical school of Vienna is an edifice which has conferred some fame upon the city, by the number who have recovered there or died there according to the rules of art; but, perhaps, none of these within the last quarter of a century, have contributed so much to the perpetuation of an illustrious name as those who had the honor of lying in the *Dead House* till they were called to pass under the scrutinizing scalpel of Rokitansky. We learn lately that the Prince of the dissecting room had long complained that the Dead House appended to the hospital was entirely too small for the accommodation of his "subjects," but, for many years the government paid no attention to his petition. More recently the subject has received due attention, and a new and appropriate building has been erected. It was solemnly inaugurated on the 25th of —— with appropriate ceremonies, the grand feature of which was an oration by Rokitansky himself on the subject of "liberty in scientific researches." A reporter says, "the professor has lost none of his powers, and bids fair to render, for a long time to come, valuable services to medical science."

Culture of Leeches.

In these days when phlebotomy is rather going out of fashion and the lancet is growing rusty in its scabbard, it is said that the culture of leeches continues to prosper. A cotemporary* tells something of the trade as it is now conducted: "A prosperous merchant, away in some far distant district of Poland or Wallachia, will keep some two or three hundred of the inhabitants of his district in full employment collecting for him, paying them on the best of all plans, according to their labor, viz., so much a dozen according to the age and quality of the leeches which they bring to the depot. The animals must be all gathered before the heat of the day sets in, and at once carried home to the capacious reservoirs provided for their reception, where they are at once counted and paid for. Packed in clay or in bags, they are at certain seasons dispatched by fleet conveyances to Marseilles, or direct to Paris, change of horses being insured,when necessary by liberal payments. The mode of packing the leeches for transport is much the same in most of the leech-breeding districts. Some are packed in boxes—first a layer of white moist clay, then a layer of the little animals, and so on until the chest is quite full. Some of the merchants pack the leeches in bags so soon as they are taken out of the marshes. Each of these bags contains about sixteen pounds weight, and it is necessary that they should be hung up for a period till the water is all drained out of them, and then the animal rolls itself up into a kind of a ball, and lies in a semi-torpid state till it is perhaps, revived on its journey by a dip into some half-way pond. The boxes or bags containing the leeches are carried in light wagons, divided into necessary compartments. Relays of horses and drivers are always kept in readiness at the various stages of the journey; but, notwithstanding the greatest care may be taken in their transport, immense numbers of the animals are killed. Severe frost or great heat is equally fatal to them."

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* Once A Week.

A New Hæmostatic.

Dr. W. N. Coté writes from Paris to the British American Journal that a plant called *Bengarvar Gamba* (*Palca tibotii,*) has been brought over from Java which possesses extraordinary hæmostatic properties. It is a kind of fern, yielding a mass of delicate filaments so light and flexible as to float a long time in the air. The color varies according to their thicknesses, from a brownish-gold hue to a greenish-black. Six grains of these filaments form a sufficient quantity to stop the bleeding of an artery a twelfth of an inch in diameter. This substance displays such avidity for water, that it becomes soaked through and sinks to the bottom of the vessel containing it in less than half a minute. If exposed to heat, it exhales an empyreumatic odor, and if it be burnt it explodes. Its styptic properties are attributed to its rapid absorption of the watery parts of the blood, thus causing immediate coagulation, also to the elasticity of the filaments which, when swollen by the absorption of the liquid, form a kind of impenetrable plug, which adhering to the wound, keeps it well closed It seems to be more prompt in forming the coagulum than other styptics and is therefore effectual in instances where they fail, as in carcinomatous and scorbutic ulcers. Before using it, it is to be triturated; a certain quantity is applied to the wound, and a compress adapted over it. The styptic thus penetrates every fissure, and instantly closes every bleeding vessel.

Carbonic Acid in the Treatment of Obstinate Ulcers.

Dr. W. N. Coté, correspondent of the British American Journal says, that Mrs. Demarquay and Leconte sent a paper to the Academie des Sciences, two years ago, on the modifications which atmospheric air, oxygen, nitrogen, and carbonic acid were calculated to produce on the process of the healing of subcutaneous sores. More recently they describe the effects of Carbonic-acid in the case of tendons of recent formation and in obstinate sores. The diseased limb is placed in an apparatus of their invention, made of india-rubber, and communicating with a vessel in which Carbonic-acid is evolved. As the pressure exercised by the india-rubber on the limb must not be so strong as to impede the circulation, the borders of the apparatus are secured by strips of diachylon plaster to prevent the escape of gas. The gas is thus applied once or oftener per day, and produces the following physiological effects: 1. There is first a sensation of heat and pricking all over the part subjected to the action of the gas, and especially on the sore; the skin is slightly injected; after some time the apparatus is found to contain a certain quantity of liquid, produced by the exhalation, from the sore and the perspiration of the part diseased; this requires the washing of the apparatus with a sponge once or twice a day. It is only on old and indolent sores, resisting all other treatment, that the exciting effects of the gas are useful. Its exciting power is less than that of oxygen gas which is appropriate in some other cases. In an indolent ulcer the Carbonic-acid cleanses the surface; the sore assumes a rose-colored tint, its edges sink down, and in a very short time a pellicle is formed around, while points of cicatrization are remarked near the centre, which soon spread and join the border. In such cases, therefore, Carbonic-acid is a powerful healing agent.

Filaria.—Guinea-Worm.

A genus of the class *vermes*, order *intestina*. Body cylindrical, filiform, equal, and quite smooth; mouth terminal, more or less perceptible, simple, and a roundish concave lip. There are about eighteen species Filaria medinensis, the thread-worm is found both in the East and West Indies; it is often seen in the morning dew, from which it enters the naked feet of the slaves, and creates a troublesome itching, frequently accompanied with inflammation and fever. There is great difficulty in extracting it from its hold; the only method is, by cautiously drawing it out by means of a piece of silk tied around its head; for if, by being too hasty, the animal should break, the part remaining under the skin grows with surprising vigor and occasions an alarming, sometimes fatal inflammation. It is frequently twelve feet long, and not larger than a horse hair. The explorers of Africa in the last century attributed the guinea worms in their bodies to the water they drank from the ponds; and as a prophylactic they drank sea-water, brought up by divers from a depth of fifteen or twenty feet. They described the worm as about one foot long, the size of a hair. They cause intense pain; the patient could neither sit or lie, walk or stand with any comfort; some were affected with a fit of insanity. In some "the symptoms began with cold shiverings, in others with burning heats. In some there comes a large swelling under which the worm can be plainly seen; in others they break out in carbuncles and ulcers, which are largest in the parts that are most muscular. The negroes did not use any remedy, but permit them to come out, and then they wash the part with salt water, and fresh butter mixed with salt. When the worm appears so it can be taken hold of, they fasten its head to a small stick to prevent it returning, when it moves forward. the purulent matter runs fromt he wound. In winding the worm round the stick, if the animal should break the wound becomes dangerous, and is often fatal. Sometimes when one worm is extracted, another shows itself at the same place, and many have several of them at a time in different parts, causing a degree of distress that is not to be described. One writer says "the pain produced by these worms is so excessive that a man would renounce all the prospects of profitable trade on this coast rather than endure it."

Diphtheria.—Perchloride of Iron.

Aubrun says he cured thirty-five cases of this disease out of thirty-nine with *Perchloride* of Iron, giving ℥ij. of a weak solution every five minutes during the day, and every fifteen minutes during the night;—the sole food allowed was an equal quantity of cold milk given after each dose. Crichton says he had equal success with *Tr.-mur.-ferri*, four to eight drops every two or three hours, along with a local application of a mixture of *Tr.-mur.-fer.* and *Acid-mur.-dil.* Out of forty cases he lost but nine.

Beau, of La Charité, now (see Year Book of Sydenham, Soc. 1861) condemns blood-letting, because he regards inflammation as especially frequent in weakly persons, because it injures the blood by diminishing its globules and increasing its fibrine, and because the results of statistics show that it is injurious. The last of these reasons would suffice for most persons of common sense.

Ledum in Whooping Cough. By Dr. Lembke, of Riga.

He treated about thirty children successfully with Ledum, making an infusion of a teaspoonful of the herb with a cupful of boiling water, a teaspoonful at a dose. Older children and grown persons used it stronger.—*Hirschel's Zeitschrift.*

Poisoning by Arsenic.

Johann Schellhammer, M.D., of Germany, made in 1846, some provings with Arsenic on himself with rather large doses, (taking gradually up to two grains per dose). As the result of his experiment, he began to suffer with burning in the stomach, like red hot coals; strangulating feeling there, with increased sensitiveness to the touch; eructations of foul smelling gases; disgust, nausea and vomiting, mostly two hours after eating, no matter how light the food was; gurgling in the abdomen, flatulency, diarrhœa or scybalous passages of clayey color.—Great restlessness, fear, strong inclination to run in the fresh air; strong visible and audible palpitations, chiefly at night; sleeplessness, continued sobbing with childish spells of crying; and after midnight a frequent desire to kill himself by stabbing his heart through and through; tremor of extremities, laxity of all muscles; general malaise, emaciation, a greenish-yellow color of the face; progressive caries of the teeth with unbearable toothache. He used a great many antidotes, but Hepar, Graphites, China, and Manganese gave only partial relief. His health was broken, his dyspeptic symptoms increasing, so that he could not bear any more even the smallest dose of wine. At last perfectly unable to perform any mental work, afraid of his fellow-men, irritable and passionate, he got so down-hearted in consequence of continued sleeplessness (from Oct. 6, 1855, to 26, Nov. 1856,) that he committed suicide.

Post mortem Examination.—1. High degree of sponginess of the pachionic glands, reduced to the thinness of paper from the continued pressure of the parietal bone. 2. Atrophy of the right ventricle of the heart with insufficiency of the aortic valves. 3. Serpentine color of the liver with induration of the right lobe. 4. One hundred and sixty-five gall-stones of different sizes in the gall-bladder, some free, others in cysts; seven large ones filled up the ductus choledochus. 5. Mucous membrane of the stomach and duodenum chronically inflamed and partly eroded. 6. Spleen enlarged, softened and friable.

BOOKS RECEIVED.

Annual Report of the Iowa Homœopathic Medical Association, containing the proceedings of its First Annual Meeting, held at Davenport, May 21, 1862. Dubuque, 1862. pp. 56.

It is only thirty years since Black Hawk with his bands of Saukies and Musquakies, having retired across the Mississippi from northern Illinois, made the last despairing struggle to prevent the great flood of western emigration from overflowing the red people, and now we receive from the land of Black Hawk, Wappelo, and the Watchful Fox (Keokuk) the transactions of a learned scientific body, which would do honor to the oldest community. It was only in 1832 that our people began to make regular settlements in what was called the "Black Hawk purchase." Two years later the territory since called Iowa had a population of 5,000 whites and 16,000 Indians, and between them ran the meridian line that bounded American civilization on the west. Some years after that date the Sioux Chief said to President Van Buren in a council at Washington: "The children of our Great Father are very many; the land is theirs from the *rising sun* to *noon-day*. The children of the red people are very many: the land is theirs from *noon-day to the setting sun!*"

The proceedings of the Iowa Association are highly interesting, but they are received too late for extended notice. Professor E. A Guilbert's inaugural address is an eloquent and elaborate tribute to the memory of Hahnemann and the history of homœopathy. The constitution and by-laws of the Association and the code of medical ethics are entirely appropriate in other longitudes, as well as in Iowa.

Practical Cases from the German Journals. By SAMUEL LILIENTHAL, M.D., of New-York.

1. *Atropin Effects, by Dr. Pemerl, of Munich.*—A physician, suffering with chronic prosopalgia, received an injection of one-thirty-second of a grain of Atrop.-sulph. under the skin. A quarter of an hour after the operation the patient could not rise, felt no bottom under his feet, and staggered against the mirror. He could swallow soup, but no solid food, as thickened gruel could not go down the œsophagus. Two hours after the operation he could not rise yet, and even when supported, could not move a step—the feet being too heavy and feeling no bottom; pupils on the side of the injection greatly enlarged; everything appears larger and with a red halo; pulse 60, irregularly intermittent, weak; head dull and confused. After eight hours the symptoms decreased, but malaise and staggering remained; restless night with little sleep; a firm thick stool. Next day head free; walking weak; pappy taste; two pulpy, full stools; sensitiveness of the left sound side; broken sleep. Two days after the operation, sensitiveness of the side usually affected with some swelling; some steps painful. Three days after, short but intense pains in one or the other lower jaws, and return of the prosopalgia as usual.

2. *Tumor in Regis Stomachica, by Dr. Kallenbach.*—A lady has between stomach and liver a ball-formed tumor of about two inches in diameter, moveable, moderately hard, elastic, not painful even under rough handling. Apis, 8, on 12th of November and 4th of December a dose (centessimal scale). Dec. 18, some stitches in the tumor, which appears softer (S. L.) Dec. 21, Jan. 19, Feb. 15, 1860; a dose Apis, 10. Feb. 27, Status quo unaltered, tumor even feels harder again. Graph., 6th trit. And on 12th March, Graph. 15, six to eight pellets every four days. April 16th, or forty-seven days after beginning with Graph., tumor is gone from its place, and the swelling, as large as a chesnut, rests between the crista ossis ilei dextr. and the last false rib. This remnant of the tumor decreased under Graph., and not a trace of it was left by August 1st From April to June the patient had sometimes daily three to four diarrhœic watery passages, with stitches in the liver. We diagnosed the tumor, a fibrous disorganization of the omentum, and the remedy could only be chosen ex usu in morbis, where Apis is praised in ovarian troubles, and Graphitis in spurious productions, especially cysts.

3. *Melancholia, by Dr. Elb, of Dresden.*—An unmarried lady, forty-one years old, suffering with melancholia since nineteen years, was eight years in a lunatic asylum without benefit. Bodily health unexceptionable, except some costive-

ness. Mental state quiet, inobtrusive; does not care what is done with or about her; disinclination to work. She understands perfectly well her state; acknowledges, that even as a young girl, she suffered with itching on the vulva, relieved by scratching, which produced a pleasurable emotion. Only a few years ago, finding out the sinfulness and injurious influence of this habit, she tries to abstain from it, and only gives way to it after most intense itching. Ars 3, three times a day two drops, produced no effect; Lycopodium, two grains of 2d trit. twice a day, relieved her in a week, and cured her entirely of all her sufferings, even the itching, in about six weeks.

4. *Melancholia, by Dr. Elb, of Dresden.*—A lady, sixty-two years old, good-humored, of sanguine temperament and good health, used to high living, got in a depressed state of mind during a sojourn in Berlin. Ars. did no good;—she returned home, where a few doses of Lycop. 2, morning and evening, given on account of stomachic catarrh, with loss of appetite and constipation, cured her in about two weeks. The following autumn she got in the same state again during a sojourn in Berlin. Nothing seemed to relieve her, and I saw her again in March. I found her much depressed, easily crying, full of bad presentiments, and unable to do any work; appetite and sleep normal; bowels, although torpid, moved daily. *From the time of awakening till about four o'clock,* P. M., *she suffered; from then till she went to bed she felt perfectly well.* This is perfectly in accord with Alumina, 3; two grains twice daily were therefore given, and cured her in four days. A slight relapse was also easily removed by the same medicine.

Anatomical Prizes.

To Students of Homœopathy,—To encourage the study of *practical* anatomy, I hereby offer $50, or the compact operating case of Dr. Wood, as a prize to be awarded, for the best *prepared* dissection of the superior extremity, embracing the shoulder with scapula and clavicle attached, and enough of the neck to exhibit the points of attachment of the scaleni muscles, together with the arm, fore-arm and hand.

For the second best dissection of the same part, a homœopathic medicine case, containing over two hundred vials, with scales, sugar of milk, &c.

My object is to receive from each homœopathic college in the United States one such preparation, and from them to select, with the assistance of a competent committee of physicians the best dissection.

If there should be several competitors from each or any of the colleges, the professor of anatomy of such college is to select, according to his judgment, the best.

The muscles in each preparation are to be well dried and the vessels colored as usual in such specimens.

Accompanying each preparation, there must be a written description of the anatomy of the parts which are seen upon the dissection, and also of those which enter purposely or accidentally have been divided or removed. This paper is to be signed by the student, stating his place of residence, his college and the number of courses of lectures he has attended.

Description of the Prizes.

The operating case is fifteen and three quarter inches long, six inches wide and three inches deep, it contains, 1 long amputating knife; 1 catling; 1 circular knife; 1 large amputating saw; 1 amputating and trephining scalpel; 1 metacarpal saw; 1 pair fine bone forceps; 1 tourniquet; 1 pair trephines; 1 Hey's skull saw; 1 elevator; 1 brush; 2 minor operating scalpels; 1 blunt and one sharp bistoury; 1 straight scissors; 1 tenaculum; 1 aneurism needle; 1 artery forceps; 2 couching needles, straight and curved; 1 Beers' bone knife; 1 bullet forceps; 1 strabismus hook; 1 curved eye forceps; 1 pair eye scissors;

1 steel director; 1 pair silver probes; 2 steel sounds; 2 silver catheters; 2 English gum-elastic bougies; silver wire, needles, ligatures, &c.

The portable homœopathic medicine chest, is fourteen and a half inches in length, nine and a half inches in width, and ten inches deep. In the top compartment there are 77 half-ounce vials corked, with names of medicines on each vial. In the second compartment or drawer there are 126 two-drachm-vials also corked and labelled, in the lower drawer, one scales, powder paper, sugar of milk, spatula, &c. The case is of black walnut, and may either be kept in the office, or can be carried in the carriage of the country physician.

Each anatomical preparation must be forwarded to my address before the 15th of February, 1863, in order that the prize may be returned before the close of the lecture season. Wm. Tod Helmuth, Box 1715, St. Louis, Mo.

A New Work on Homœopathic Practice.

Drs. Ludlam and Hale, of the editorial corps of this Journal, are engaged in preparing an epitome of the English and American periodical literature of our school. The work is designed to embody the aggregate recorded experience of the profession in the treatment of disease, arranged under appropriate headings for the ready reference of the student and practitioner. There is not a physician among us but will hail its issue with pleasure. Some of our journals are out of print, all are expensive, and to "wade" though about fifty volumes, if they were available, when one's time is occupied, is no small task.

Our *confrères* will place the profession under lasting obligation by giving us the cream of this small library between two or four covers, as the case may be. We understand the work is expected to appear in the early spring.

Obituary.

Died at St. Louis, Mo., in the early part of September, 1862, the venerable Dr. Helmuth, father of our faithful and enterprising colleague, Prof. Wm. Tod Helmuth, M.D., of the Homœopathic Medical College of Missouri. His disease is described as "dropsy, displaying itself in every cavity, brain, thorax, abdomen, scrotum,—with great general anasarca."

In the death of Dr. Helmuth, homœopathy loses another of its earliest and ablest promoters in America; and his memory will be especially cherished by many who had a personal knowledge of him in life. The zealous and whole-hearted manner in which he entered upon the practice of the new doctrines, transplanted by Dr. Gram from the country of Hahnemann, influenced many others to investigate and adopt them when little had been heard of them in this country. He continued to the end of his life an earnest advocate and a liberal promoter of our cause; and now, when that cause is firmly established in every quarter of the world, he leaves the field of labor for the land of reward and rest; terminating the battle of life with a six months' struggle against the steady advance of an incurable disease. In all the qualities of the gentleman, the accomplished physician, the patriot citizen, the receiver and defender of advanced moral and scientific truth, Dr. Helmuth was conspicuous among American homœopathists.

Dr. Tessier, Physician to the hospital for infants, and one of the physicians of the hospital Beaujon, of Paris, died in June last. The success with which he treated disease on the principle of Hahnemann, called forth the high commendation of Dr. Trousseau, who declared in a speech before the Academie de Medecine, that though he was no homœopathist himself, he was convinced that the homœopathic practice was better for the patient than that ordinarily practiced in Paris.

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Original and Translated Papers.

ARTICLE XX.—*Derangements of the Human Mind in their Relations to Physical Diseases.* By F. W. HUNT, M.D., of New-York.*

FROM the time that the philosopher-poet Simonides undertook to reason out the relations between the visible universe and its invisible Author, the human intellect has been laboriously engaged in the investigation of itself. The Greek poet had completed the lamentation for the patriots who had fallen in the battles of the first *Great Republic*; but when he sat down to the investigation of the most intricate of all philosophical problems, he found a theme beyond his powers. Often when he was on the point of discovering the truth, and thought it just within his grasp, "it slipped from him, or dissolved itself into meanings which destroyed each other;" and on the fortieth day of his meditation, he abandoned the subject in despair. From that time to the present, the human intellect has never been satisfied with its own powers of self-introspection, and we cannot promise to satisfy all its aspirations; but we propose to review some of the results of a few thousand years' observations on the derangement of the human intellect, produced by, or associated with, physical disease.

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* Read before the Hahnemann Academy of Medicine, Dec., 1862.

Under the general term INSANITY it is common to speak of all or any of the usual perturbations of the intellect. There is no correct definition of the word. Perhaps, as Halford says, "insanity, like sense, admits of no definition." One of the best efforts at a definition is that of Dr. Wright, of the Bethlehem Hospital. "Insanity is a disease of one or more faculties of the mind, of the diseased manifestation of which the individual is unconscious, or not able to control." Some of the existing definitions would nearly depopulate all the asylums; others would confine in straight jackets, not only their authors, but nine-tenths of their readers.

GENERA AND SPECIES OF INTELLECTUAL DERANGEMENT.—Morbid physical conditions may produce derangement of the intellect in various modes and degrees, to some of which the following names have been applied:

	Species.
GENUS I. *Empathema,* Ungovernable Passion.	1. Erratic genus, including empathema entonica.—Impassioned excitement. 2. E. atonica.—Depression, Absence of passion. 3. E. inane.—Hair-brained passion. 4. E. nostalgia.—Home-sickness.
GENUS II. *Ecphrosia.* Insanity.	1. Insanity of the *affective faculties.* 2. Insanity of the *reasoning faculties.* 3. Insanity involving both the *affective* and reasoning faculties. 4. Mania may include any one of the species, and indicates fury combined with insanity. 5. Melancholia,—either of the above species of insanity combined with fear and anxiety. 6. Monomania.

I.—That the brain is the organ through which the intelligent mind carries on its intercourse with the external world need not now be proved. The great desideratum for which all men perpetually seek on earth is "a *sound mind* in a *sound body,*" and it is, perhaps, generally admitted that if we could restore the *body* to a state of *perfect sanity*, the *mind* would evince sufficient power for all the purposes of this life. But instead of meeting with perfect specimens of man as he might be, we really find that perfect sanity exists nowhere. The men who have filled the world with the noise of their great performances have, in a great proportion of instances known to history, been men who were in many respects in an abnormal state; and much of what they did do has been fairly attributed to constitutional peculiarities, or to the morbid activity of some of their mental faculties. I mention a few only among the thousands called *men of genius.*

At a time when the new science of craniology was still in its infancy, when it was very imperfectly understood, and when none but Gall and Spurzheim were its advocates, the celebrated critic and classical scholar, Richard Porson, died of apoplexy. He had long been professor of Greek in the University of Cambridge, was distinguished for great acuteness and solidity of judgment, intense application, and a stupendous memory. His immense erudition had rendered him an object of universal admiration; and his head, being the subject of general curiosity, was subjected to a post-mortem inspection by the anatomists. The account given of the dissection says that, "to the consternation of all phrenologists, but to the consolation of all blockheads, his skull was found to be thicker than that of any man that had been dissected in Europe." The phenomenon was considered inexplicable, and Dr. Gall was consulted. The founder of phrenology regarded the case as a perplexing one, and only answered: "How so much knowledge could get into such a cranium as that I cannot indeed comprehend; but I can well understand that, having once got into it, *it would never be able to get out again.*"

The science which claimed that the temple in which the soul dwelt could exert an influence over the powers of the soul itself, was then new, and Dr. Gall had still much to learn. He combatted for twenty years longer with the professors who stood at the head of all the schools; and then, leaving his earliest and greatest pupil, Spurzheim to carry on the war, Dr. Gall died at Paris in 1828. It was thought proper that the man who had examined so many head should have his own examined also. Again, the anatomists were astonished to find a cranium thicker than had ever been seen since the death of Porson—at least twice as thick as any other they could find—and the channels, worn by the throbbing of the arteries of the dura-mater on the inner surface of the parietal bones, were deeper than had ever before been seen. The soul had made a happy escape from a massive prison where it had long struggled with storms without and physical disease within. The last enemy that assailed it was allopathic medicine. The disease was a true gastritis which should not have been fatal. But a conclave of physicians gave him twenty grains of Quinine per day, for five days, and the tenant of the strong old castle surrendered it into their hands.

We find many examples among illustrious men, of intense activity of mind, accompanied by some extraordinary development of the bones of the head. Cardinal Ximenes, Archbishop of Toledo, and Prime Minister of Spain, wherever he went, whether toiling incessantly for the reform of the Spanish government, under Ferdinand and Isabella, converting the Moors to the Catholic religion, or leading a military expedition to the coast of Africa, was continually tormented with a pain in the head which no remedy would remove. The warrior statesman, in the costume of an archbishop, with a suit of armor over it was little more than a "living skeleton." He is described as "gaunt, graceless and unprepossessing; his austerities had reduced him to a walking anatomy, though his carriage was erect, his forehead unwrinkled, his features sharp and thin, his eyes small, dark, and deep set, and the general expression of his countenance repulsive and severe." Such was the appearance of the tall and ghostly leader who stormed the Moorish fortress of Moran, in Africa, and put the garrison to the sword. When tortured by neuralgia, he governed Spain by the force of his iron will; and when asked by what authority he ruled, he only pointed to his cannon. The Cardinal died in 1517, and his head was examined forty years afterwards. It was found so compact and solid that every vestige of the sutures was obliterated, and the whole cranium formed one hard and firm bone. To this peculiarity of his skull the Abbé Richard attributed the statesman's sufferings during life. The same author says that when Cardinal Richelieu died in 1642, the reason why he had never suffered from headaches was seen; twelve small circular perforations were found penetrating the skull; "and through these the vapors from his brain had continually exhaled." This was the statesman who carried on wars for and against the different sects and governments of christendom, and then "covered up all his crimes with the red mantle" of murder and assassination. To such a man life is unhappy and death terrible.

Baron Larry, the chief surgeon of the first Napoleon, says his illustrious associate in the army in Egypt, Mongé, made him a visit many years after the downfall of the Empire. "The good old man," says Larrey, "shed tears of sorrow" when he spoke of the loss of all his former patrons, offices, and titles. Profound melancholy and intolerable weariness of life darkened all his later years. After death, it was found that the arteries of his brain were ossified, many of them hardened into bone. The mind and the body had acted and reacted upon each other. Fourcroy, the chemist, closed his life, also, in gloomy wretchedness; and in his brain, also, the arteries were found ossified.

Among the English poets there has been no one of whom everybody knows so much, and at the same time understands so little, as Lord Byron. The mere phrenologist inspects all the portraits, busts and memorials of the poet that can be found, and feels but partially satisfied. There is evidently something both higher and deeper in Bryon's genius than physical conformation of the head would ever reveal. There is a loftier spirituality, as well as a lower sensualism in his brilliant works, than the shape and size of the brain could alone have shown us. He had other physical peculiarities than those displayed there; he was the subject of disease through many years of his life; he inherited a feeble, irritable constitution, and suffered all his life the penalties of ancestral vices; and all that he achieved or endured on earth only cultivated a morbid activity of the brain and nerves.

England was his home; but it was an unhappy one, and he left it. Inspired by a misanthropic hatred of much that was wrong in his own country, and by admiration of some remnant of the ancient patriotism in the modern Greeks, he devoted his life, energies, and fortune to the liberation of the land of Demosthenes. There, under the influence of malaria, great mental exertion and despondency, he exhausted the powers of his over-active brain, and died on the 19th of April, 1824,—having reluctantly submitted to "a copious bleeding," which settled the question of life and death with a reasonable degree of promptness. The *post-mortem* examination solved many of the mysteries of his life, and partially unravelled the perplexed web of the many contradictions in his character. The skull, like that of Cardinal Ximenes, presented the most remarkable compactness, having no sutures between the several parts of it; but all the different bones were perfectly consolidated into one, without any intermediate diploë,—the head resembling that of a man half a century older than the poet; the medullary substance preponderated largely over the cortical portion; the convolutions very numerous; the fissures deep. There were also evidences of long-continued irritation, such as could not fail to influence his mental capacities and feelings. It was this state of the brain that heightened and intensified his passions, and produced many of the wildest aberrations of his erratic genius. It was this, added to the usual morbid sensibilities of the digestive organs, and the long-persistent constipation and torpor common to literary men, that made the man who possessed the loftiest poetical genius of his time wish for death at a period of life when men, whose minds and bodies are more in harmony, are only beginning to live. Disease, which neither he nor the physicians could understand, drove him to desire severance from all the relations of a world which promised so little for humanity, and nothing for him. Ignorant himself of any rational medical treatment, he made no effort to relieve himself from any of his miseries. It was under these melancholy influences that he came forth from his bed-room in that old stone building at Missolonghi on his last birth-day, and presented to his friends his last poem. They saw nothing in it but gloomy forebodings and melancholy recollections:

"My days are in the yellow leaf,
The flowers and fruit of love are gone;
The worm, the canker, and the grief
Are mine alone!

If thou regret'st thy youth, why *live?*
The land of honorable death
Is here: up to the field and give
Away thy breath!

Seek out—less often sought than found—
A soldier's grave, for thee the best;
Then look around thee, choose thy ground,
And take thy rest."

A true estimate, then, of the character and genius of Byron can only be made by taking into the account, not merely the size, form, and relative activity of his brain, with the causes which operated through all his life to render him morbidly irritable,—not only his British education, and his travels in classic lands,—not only his inherited rank, with its accompanying wealth, we must, at the same time, calculate the value of the physical frame which he also inherited, encumbered with the diseases and vices of an aristocratic ancestry. When we have seen some of the same passions and wayward tendencies developed by himself, and have measured the power of all the surrounding influences to cultivate all that was good and all that was evil in such a man, then and not before may we claim that we understand him.

II. DERANGEMENT OR PERVERSION OF THE REASONING FACULTIES—INSANITY.

Derangement of the intellect has always been regarded as a mysterious disease. Dr. Rush said, that in attempting to write out his own observations on the "Diseases of the Mind," he felt that he was about to venture on consecrated ground. We have now seen something of the intricacies of the subject, as presented in individuals whose minds were regarded by the world as *extraordinary*, but who were never considered *insane*. We now proceed to examine the principal features of that higher grade of mental disorder called *insanity;* remembering that the most difficult question in all medical practice may be the determination of the problem involving the existence of the disease, and that no general theory of the human mind has ever been popularly accepted.

Knowledge and *wisdom* have usually been confounded; and even now the distinction between the metaphysical or *higher reasoning power*, and that which reasons on the facts furnished by the *evidence of the senses* is not generally recognized; but it is believed that the separate existence and action of these two powers of the mind admit of demonstration whenever the opportunity shall be found for presenting the necessary array of facts and illustrations. A few compressed statements on the subject are sufficient for our present purpose.

It has been believed by the wisest philosophers of all ages, that the human intellect possessed a higher reasoning power than that employed in reasoning on the *material* objects around them. It was observed by the earliest students of human nature, that some men who could reason acutely on all questions presented to the *senses* could never comprehend anything of *higher abstract truth;* and a distinction was drawn between *physical* or *sensuous*, *material* subjects, and those which were *metaphysical*—that is *beyond* or *above* the physical. It was this higher reasoning power, which was known as *pure reason.* It was this high power of the soul which the Greeks deified under the name of MINERVA, or the *goddess of wisdom.* She was the impersonation of that highest faculty which *perceives* truth intuitively, before it has time to demonstrate it through the slow processes of the *external senses.* Instead of having grown up during the course of successive years through the ordinary stages of life, she is represented as having sprung forth from the brain of Jupiter,* armed with the far-reaching spear of victory, and the farseeing eye of inspired wisdom.

The ancients distinguished between the *higher reason* and the *lower reason*, which is called by many authors judgment or understanding. Plato, Seneca, and Aristotle made this distinction; and in modern times, Leighton, Harrington, Lord Bacon, Kant, Coleridge, and all other philosophers, except such as are imbued with the materialism of Locke, have confined the understanding to the office of reasoning on the objects of the external world, and called it "the faculty of judging according to sense." Animals, say these authors, have the power of *understanding*, as applied to the *things of time and sense*, but they have no perception of the subjects of *metaphysical* or spiritual contemplation, which are the proper objects of *pure reason.*

These conclusions had been reached by the philosophers before the influence of the form and size of the brain on the powers and capacities of the soul were suspected. When, through the happy exercise of this same higher reasoning power, Dr. Gall received the first intuitions of a deeper truth than men had yet acknowledged, he saw that his conjecture of the connection between the powers of the mind and the form and size of the temple in which it dwelt could only be proved true by actual observation. In an age of materialism metaphysical truth could only be demonstrated by physical facts, collected by persevering labor, and displayed before the external senses. Dr. Gall patiently pursued the work of making and generalizing such observations for more than forty years; he examined heads, collected skulls, dissected brains; and with the aid of his chivalrous pupil Spurzheim, he fought the battle of inductive science and the best interests of a progressive humanity, though opposed by the philosophers, the physicians, and the theologians of Europe. They made few converts while they lived, though their merits were generally acknowledged after they had passed beyond the scenes of earthly opposition and earthly honors.

But we are not at present concerned with the influence of the conformation of the physical structure on the human mind in a state of health. It is only when that structure is diseased that the physician is likely to be called upon; and then he will often find that the task imposed upon him is one involving a sufficient degree of difficulty and responsibility; he may consider himself fortunate if he shall succeed in restoring the mind and the body to their normal condition, or shall even be able to explain the mysterious influences exerted by the material and the spiritual upon each other.

Diagnosis.—*Mental alienation* includes all cases where the mind is incoherent or deficient in comprehending those plain facts which require the least exertion of understanding, whether from natural or morbid imbecility, or morbid perversion of its faculties or operations, by which the mind becomes incapable of distinguishing between the right and wrong of certain principles, which are generally admitted.

No general definition will include every case. The mind in the insane has either lost or perverted its accustomed powers, or never had them. We include not under the term insanity the common mental eccentricities which often appear in the strongest intellects; for they often arise from abstraction of the mind from passing scenes and events, and are called *absence of mind.* Every thinking man experiences this to some extent. But when they usurp supremacy from continually revolving in one set of ideas, and overcome the judgment, and impair understanding, generally, the individual comes under the scope of mental alienation.

General Symptoms of Insanity.—In total or partial perversion of intellect the concatenation of ideas is broken, as in dreams,—producing incongruous combinations, which are repugnant to reason and common reflection. The person in whom the intellect is thus deranged may manifest it in many different ways, and very often it is difficult to decide whether any of the visible symptoms constitute positive evidence of insanity. "The tearing of clothes so common in this disease was one of the usual manifestations of deep distress among the Jews, probably from its being one of the natural signs among the nations of the east. The hallooing, stamping, and rattling of chains common among mad people are designed to excite counter-impressions upon their ears, to suspend or overcome the anguish of their minds; they wound and mangle their bodies for the same purpose. Even when there is singing and laughter, there is reason to believe that the heart is oppressed with sadness. The sadness and seeming apathy of manalgia are not always evidence of the absence of misery. 'The willow weeps,' says the poet, 'but cannot feel;' the torpid maniac feels, but cannot weep. One insane person declared, that his sufferings from imaginary evils were vastly greater than any real ones could be."*

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* Rush.

Where the judgment is impaired, and yet the operations of the mind are not wholly perverted, we cannot always say that they have lost their reasoning power; for they sometimes reason with extreme acuteness, though they are deficient in the powers of perception and reason from false premises. But many persons acknowledged to be sane commit the same error. Generally the imagination usurps authority over the reasoning faculties. Thus it is said that the separation between the imaginative man and the insane man is very narrow; and when the imagination usurps control over the reflective powers, the mind is like a ship in a stormy ocean without helm or rudder, driven before every wind.

Insanity appears in various aspects, according to the causes in which it has originated. Some are gay and seemingly happy; some imagine themselves superior beings, and assume the importance of their supposed situation; some are delighted with flowers, some with playthings; some are revengeful and furious; others are silent. Thus they drag out their miserable existence. In one respect they are all alike; all have *incoherency of conception and incongruous ideas on at least one subject*, which may have caused their malady. Some consider themselves utterly miserable, and resort to various efforts to drive out their anguish of mind; they laugh, scream, cry, and especially seek to obtain ardent spirits and tobacco. Some, though previously silent and gloomy, become lively and loquacious as soon as tobacco is given them, or ardent spirits promised; they are cunning, suspicious, alive to injury, and quick in avenging it.

The legal decision of the question of insanity is one of the most important as well as the most difficult ever presented to a court of justice. It may involve the punishment of an individual with death for the commission of an act, the moral guilt of which he is, from his unhappy state of mind, unable to judge; or the imprisonment of a sane man who, driven by rage, and perhaps impetuosity of temper, may exhibit some of those manifestations which the inexperienced and ignorant may call signs of madness. In either of these cases, and a vast number more, the greatest injustice and cruelty have been committed through the ignorance of physicians and the wickedness of designing men. In every case we should be extremely cautious. The inexperienced should never give a positive opinion in a doubtful case. The probable *motives* by which an accused person could have been actuated must always be thoroughly studied.

The investigation of a case of insanity requires the highest degree of professional skill, the most scrupulous delicacy in approaching the subject, an exquisite tact and ingenuity in tracing symptoms to their source, the most profound knowledge of the secret springs of human action, and all the diversified considerations by which the mind may be arrested, awed or conciliated. It will only be by acquiring an almost despotic ascendancy over the individual whose intellect is "lost in the stormy desert of the brain," that the physician can penetrate to the deeply hidden fountains of mental disquietude, and the secret sources of physical disease. It will only be by gaining an intimate knowledge of the reciprocal action of mind and body on each other that the mystery of a perverted intellect can be comprehended.

Distinction between Real and Feigned Insanity.

REAL INSANITY.	FEIGNED INSANITY.
When the paroxysm of the real madman is over, he tries to conceal his malady; he feels the unhappy infirmity of his nature, and shrinks from observation.	The pretender to insanity is apt to overact his part. In company he is boisterous; when alone silent. He finds it difficult to sustain his assumed character for any length of time.
There is a peculiar cast of countenance which the experienced can detect, and which is difficult to counterfeit, particularly the sudden transition in the expression of the eye, from an unmeaning vagueness to a flushing intensity, when particular actions or passions are excited.	He endeavors to give convincing proofs of his madness. Some are so acute as to deceive us in this point, but so badly does he imitate the expression, and so difficult is it to keep up the deception that his powers of endurance fail, where one truly insane would persist for an indefinite time.
All the organs of sense are perverted: he will bear the most offensive effluvia and the most violent noises. He is wholly inattentive to physical wants, can endure long watchfulness; though all insane patients cannot equally endure priva-	He finds it a difficult task to submit to the long watchings, fastings, and exposures to cold that the really insane endure without noticing them. He cannot avoid sleeping; he can-

tions. He tries to convince you that he is *not insane*, and this effort furnishes the strongest evidence that he is so; he always betrays a morbid watchfulness to see if you suspect him of it. So far from endeavoring to give convincing proofs of his insanity, he shrinks from observation; but betrays in every look that he is afraid you think him insane, just as a dishonest man fears somebody will suspect him of dishonesty; and when reason returns he avoids the most remote allusion to his malady. He feels the humiliating condition which it has pleased the Almighty to permit to fall upon him; and, instead of being clamorous and determined to obtain his freedom, he seems insulted if his disease be alluded to; he is silent, submissive, unobtrusive, and deeply humiliated. not mimic the solemn dignity of real madness, nor imitate the peculiar expression of the countenance.

In real insanity we often see displays of astonishing intellectual efforts exhibited in a great many different aspects; but we more frequently see these displays in the exercise of the imaginative than the reasoning faculties. The dramatic poet Lee, wrote the Tragedy of Nero and several other plays in the Bethlehem Hospital for lunatics; and was, at times, excited to the fury of the wildest maniac. And yet all his plays were acted with applause before the same people who were only beginning to appreciate Shakspeare. Another English poet wrote a poem descriptive of his melancholy situation. Christopher Smart wrote his verses on the walls of his cell. Shakspeare, the master of the human passions and of the human heart, delineates in Hamlet and in King Lear the different forms of madness arising from grief. In Lear we see the characteristics of an arbitary monarch, defying the fury of the elements; in the beautiful Ophelia the fondness for flowers, and the various emblems of sorrow.* In Hamlet we have a form of insanity more feigned than real, which has perplexed jurists as well as physicians.

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* Dr. Sims.

Physical Symptoms of Insanity.—The eyes are more frequently dark; and the hair dark and dry; complexion swarthy, secretion from the nose diminished. Dr. Hill says maniacs have a peculiar fœtid odor emitted from the body. This is certainly not universal, but we have personally remarked it in a large number of cases.

Arterial action is generally increased in the insane. Dr. Rush says it is generally stronger than in health. In 1794, two men were condemned to die for high treason against the United States, in one of the western counties of Pennsylvania. One of these was said to have become insane after sentence of death had been pronounced upon him. A physician consulted declared the insanity feigned. President Washington ordered a consultation of physicians. Drs. Shippen, Griffiths, and Rush examined the man and were not satisfied with the symptoms presented. Dr. Rush thought that the acceleration of *the pulse* "to more than 20 beats above what it would be in health," would justify the decision that the man was insane. Dr. Shippen ascribed the quickness of the pulse to *fear*. We could not now accept the opinion of either of these great men as correct. But the influence of Dr. Rush prevailed with the President, and the man was pardoned.

1. INSANITY INVOLVING THE AFFECTIVE FACULTIES OR FEELINGS, WHILE THE INTELLECT OR REASONING POWER REMAINS SOUND.

Austerity of Conduct and Tyranical Disposition often present the principal visible evidence of a grade of insanity which no defect of reasoning power betrays. "In a well-attested case, a father systematically persecuted his children for many years, during which time he passed in the world for a man of great talent and probity; and it was only after the history of his life had been sifted by the best physicians that a tinge of insanity could be found in it." He had started in life with impractical notions of propriety of conduct, which he failed to realize in his children. He therefore conceived such a hatred for them that he persecuted them even to destitution and charges of the worst crimes. His success in prosecuting his plans, and in common business evinced anything but insanity (Halford). A strongly-marked case of this kind is finely painted by M. Chateaubriand in the person of his father.*

M. Pinel gives the case of a man who had periodical fits of insanity, in which he was seized with incontrollable fury which inspired him to a propensity to take up any weapon he could find, and knock on the head the first person who came in his sight. He experienced a kind of internal combat between this propensity to destroy, and the profound horror that arose in his mind at the contemplation of such a crime. There was no mark of wandering of memory, imagination or judgment. Although devoted to the happiness of his wife, he came near killing her, and had only time to bid her run to avoid his fury. "He said to me," says Pinel "during his seclusion, that his tendency to commit murder was absolutely forced and involuntary. All his lucid intervals were marked by expressions of melancholy and remorse; and so great did his disgust of life become, that he often wished to put an end to his own existence. 'What reason,' said he, 'have I to wish to destroy the superintendent of the hospital who treats me with so much kindness; and yet in my moments of fury I am tempted to rush upon him as well as others, and plunge a dagger into his heart." (*Sur L'Alienation Mentale*, p. 202).

Hospitals for the insane are never without some examples of mania, marked by acts of extravagance or even fury, with a kind of judgment preserved in all its integrity, if we judge of it by conversations. The lunatic gives the most just and precise answers to the questions of the curious; no incoherence of ideas is discernible; he reads and writes letters as if his understanding were perfectly sound; and yet, by a singular contrast, he tears in pieces his clothes and bed-covers, and always finds some plausible reason to justify his wandering and his fury." Such cases have been referred to as proving the pleurality of the organs of the brain.

It is remarked that it is common for the insane to reason correctly, though, from false premises. The man who believes himself to be composed of glass, reasons correctly in being afraid of being broken to pieces. The Prince of the House of

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* Memoirs of M. Chateaubriand, 1861.

Bourbon, who believed himself to be a plant, reasoned correctly in standing in a garden and insisting on being watered with the other plants. The lunatic in the cell of the Pennsylvania Hospital, who thought the wheel-work of the universe moved only by his direction, was right in being afraid to withdraw his regulating hand from it; for, said he, "it depends on me to move the balance-wheel of heaven, and if ever I should stop the whole universe would stand still."

The point at which the mind may be said to become unsound is not easily ascertained, and strange mistakes arise in trying to draw the exact line. The people of the city of Abdera believed Democritus insane, and sent for Hippocrates to cure him; but Hippocrates decided that not Democritus but the people of Abdera were insane. Much learning was thought to have made the Apostle Paul mad, because from persecuting the Christians he became a strenous advocate of the same doctrines he had opposed. Whatever opinions are not generally received are charged to the insanity of those who accept them, till reason and experience overpower our prejudices and convince us that "we, the people," have for once been wrong. In religious as well as political controversies each party pities the weakness and disordered minds that can be satisfied with the creed of the opposing party.

Whenever an individual is merely apparently absurd in matters of opinion which do not effect what may be called the elementary principles of feeling or conduct, we need not fear that these errors will lead to insanity. An illusion may exist in regard to particular subjects in the mind of a man of genius, and it may lead him to indulge in eccentric whims and fancies; whilst the points on which the illusion exist are utterly indifferent to the well-being of all about him, and on every other subject his conceptions are clear and his conclusions correct. Pythagoras believed that he had lived in former ages, had inhabited different bodies, and in the shape of Euphorbus, had assisted at the siege of Troy, where he was killed by Menelaus. Tasso believed that he was visited by a familiar spirit with whom he conversed aloud. The hero of Cervantes, Don Quixotte, is a good specimen of this grade of insanity. "If," says a celebrated writer, "the circle in which this absurdity revolves is so small that it touches nobody, a man is only called *singular*. But if its orbit is so extended as to run across the path of others, he is *insane*."*

When the body is healthy and the mind sound, our beliefs, emotions and actions are induced by mental processes more or less complete, more or less accurate, but in all cases there is some kind of foundation for our belief: we believe because we have evidence, good or bad. But the insane believe without evidence. Persons who have recovered from mental derangement, say they had no reason at all for believing as they did in absurd and impossible things; there was the thought in their minds with the most undoubting confidence in its truth; but how it came there they know as little as how it went away. Some persons on the verge of melancholy say they are wretched, but know not why; that they have everything to make them happy, and yet feel no interest in life, they feel a wretchedness for which they can give no reason. Some who have murdered those who never offended them, say they are urged to it by a strange impulse, totally different from that which urges a sane man to commit such acts.

Legal authorities say that to prove insanity it is necessary to prove "insane belief." But in what does insane belief consist? It is something either physically impossible or totally groundless. Many ignorant persons, not insane, can be led to believe in physical impossibilities, while many of the insane are possessed with one absorbing idea for which there *is* a foundation in reason and in fact. The East India captain, mentioned by Gooch, who, while a law-suit concerning his father's will was pending, became insane, and imagined that he had suddenly come into possession of £100,000 a year, had no foundation whatever for that belief; but he immediately acted upon it; commenced an extravagant style of living, offered his physician a carriage and horses; and at length went abroad to dethrone the Turkish Sultan, promising his friend a magnificent seraglio; all of which, of course, failed of accomplishment. But, there are other cases in which "insane belief" is founded upon real facts. Dr. Gooch mentions an insane lady, whose predominant idea was that her husband was unfaithful to her; and this so far from being unreasonable, was in reality true, and she had known it for years, without any unusual disquietude; now, it engrossed all her thoughts; she neglected all her ordinary pursuits, took a dislike to all her friends, felt no interest in her children, and sat silent and motionless from morning till night. Her insanity consisted not in the groundlessness of her predominant belief, but in its overwhelming influence over her feelings and conduct.*

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* **Medical Recorder, 1827, p. 481.**

But the most difficult cases that come before a court, involving the existence of insanity, are those in which it is the desire and interest of the insane person to conceal his malady. On this point Lord Erskine on one occasion said: "It is agreed by all jurists and is established by the law of this country and every other country, that it is *the reason of a man* which makes him accountable for his actions, and the *absence of reason* acquits him of crime. This principle is indisputable; yet so fearfully and wonderfully are we made, so infinitely subtle is the spiritual part of our being, so difficult is it to trace with accuracy the effect of diseased intellect upon human action, that I may appeal to all who hear me, whether there are any causes more difficult, or which indeed so often confound the learning of judges themselves, as when insanity or the effects and consequences of insanity, become the subjects of legal consideration and judgment." On another occasion the same great lawyer said: in one case he used every effort in vain before a court to prove an individual insane, until Dr. Sims came in and explained the nature and cause of the malady. His lordship then addrsssed him on that point, and he quickly evinced insanity to the full satisfaction of the court.

A Case by Lord Mansfield.—A man named Wood indicted Dr. Monro for keeping him as a prisoner when he was perfectly rational and sane. He was examined in a most severe and critical manner by the counsel without exposing his disease. "But Dr. Beattie, having come upon the bench by me," said Lord Mansfield, "he desired me to ask the complainant 'what had become of the princess with whom he corresponded in cherry-juice.' He showed in a moment what he was. He answered that 'there was nothing in all that; because, having been, as everybody knew, imprisoned in a high tower, and being debarred the use of ink, he had no other means of correspondence; but by writing his letters in cherry-juice, and throwing them into the river, which surrounded the tower, where the princess received them in a boat.' There existed of course no tower, there had been no imprisonment, no writing in cherry-juice, no river, no boat; the whole was an inveterate phantom of the imagination. I immediately directed Dr. Monro to be discharged. But this Mr. Wood being a merchant in Philpot Lane, and having been carried through the city on his way to the mad-house, indicted Dr. Monro over again for a trespass and imprisonment in London. Knowing now how he lost his case before by speaking of the princess at Westminster, he determined not to lose it again from the same cause. "Such is the extraordinary cunning and subtlety of madmen, that when cross-examined in the trial, as he had successfully been before, in order to expose his madness, all the ingenuity of the bar and all the authority of the court could not induce him to say one syllable about the princess which had put an end to his indictment before, although he still had the indelible impression upon his mind, as he signified to those near him; but, conscious of the influence it had had against him before, he positively persisted in holding it back."

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* Gooch.

Burton (in his "Anatomy of Melancholy") says: "Suspicion and jealousy are generally symptoms of this form of the disease. If two talk together they mean him; or if they talk with him, he is ready to misconstrue every word they speak, and interpret it to the worst. Inconstant in all their actions; vertiginous, restless, unapt to resolve of any business; they will and will not, persuaded to and from on every occasion; yet if once resolved, obstinate and hard to be reconciled. They do and then they repent, and are both ways disquieted on all hands; soon weary, with unsound judgments on some things; and excellent apprehensions, judicious, wise, witty; for melancholy advances men's conceits more than any humor whatever. Fearful, suspicious of all; but many are hair-brained and rush carelessly, fit to be assassinates, as being void of all truth and sorrow. *Tædium vitæ* is a common symptom; they are soon tired with all things; they cannot die, they will not live: they complain, weep, lament, and think they lead most melancholy lives." Such is the portrait of the disease, as Burton saw and felt it in his own case.

The descriptions of melancholy by Shakespeare are always accurate: "I have of late, wherefor I know not, lost all my spirits,—foregone all custom of exercise; and indeed it goes so heavily with my disposition, that this goodly frame, the earth, seems to me a sterile promontory; this most excellent canopy, the air,—look you, this brave overhanging firmament, this majestic roof, fretted with golden fires,—why, it appears no other thing to me than a pestilent congregation of vapors." In all the forms of madness Shakespeare's portraitures are acknowledged to be as faultless as his intuitional analysis of human characters, as exhibited in men in their normal state. It has been supposed that he made the subject of insanity a particular study, as Crabbe and Scott certainly did after him. The various forms of the malady he has described—the perfect keeping of each throughout the complications of dramatic action—the exact adjustment of the peculiar kind of madness to the circumstances which introduce it, and to the previous character of "the sound man," leave us lost in astonishment. His test of madness given in Hamlet, has been employed by physicians in determining the existence of the malady, when other tests had failed to detect it.

"Ecstacy!
My pulse as yours doth temperately keep time
And makes as healthful music. It is not madness
That I have uttered; bring me to the test,
And *I the matter will* RE-WORD, *which madness*
Would gambol from."

A case of this is given by Halford.

Of the authors of our time none have more correctly described insanity than George Crabbe, the poet. He made it a subject of such special study that he has been styled by a philosopher "the anatomist of the human soul;" and Byron characterized him as "nature's sternest painter, yet the best."

In the "Scene in a Mad-house," we look upon real and imaginary sorrows till

"The heart is torn
By views of wo we cannot heal."

We find truthfully delineated

"The wan projector's mystic style,
  The lumpish idiot leering by,
The peevish idler's ceaseless wile,
And that poor maiden's half-formed smile,
  While struggling for the full-drawn sigh!"

Criminal records show that in former times the scaffold had many victims, who in the present state of science would find their way to the aslyum for insane. It was reserved for M. Pinel to designate that extraordinary form of insanity, in which, without any sensible aberration of the intellect, persons are led to commit crimes which in the eyes of the vulgar, are only explicable on the ground of extreme depravity. At a later period his pupil, M. Esquirol, established and developed the doctrine of partial delirium or monomania. It is characterized by a small number of fixed, dominant and exclusive ideas, and even *one idea* alone to which insanity is confined; the mind in such cases is, in regard to all other subjects, perfectly sound.

Prichard describes as *moral insanity* that variety called by Pinel "manie de caractère." It is a slight perversion of the instincts and affections which renders the individual a scourge to all around him, and which is yet unattended with any mental delusion. These are turbulent, unmanageable beings, choleric in disposition, committing various censurable acts, which they are always ready to justify by plausible reasons; and who become to their friends and family a continued source of inquietude and grief. They commit mischief for amusement, malice, or wickedness, and are incapable of application or labor. They break, disarrange, and destroy everything. Individuals afflicted by this partial perversion of the disposition, commit out-of-the-way actions, and maintain the most singular and absurd conversation, well knowing all the while what they do and what they say. The understanding suffers no lesion; the patient is enabled to justify his proceedings with a surprising connection and lucidity of ideas and expressions. There is but an *instinctive perversion*,—a general exhalation of the bad propensities, but rarely to the extent of insanity. When this perversion of the affections complicates ordinary insanity, the "lunatic becomes the most insupportable of beings, creating eternal confusion and quarrels among the other inmates, and their attendants, which seems the chief object of their lives."

Pathology.—The pathology of insanity has perplexed all writers who have attempted it. Men afraid of encouraging materialism have represented the mind as so entirely independent of the body and so far above it, as to be entirely beyond its influence. And, finding no means of reaching the mind, except through some of the sentient avenues of the body, they have abandoned the subject of insanity as one that the physical agencies of material medicines cannot reach.

Our theory is, that insanity always, when not dependent on, is, at least, *associated with organic disease of the body.* The extent of physical derangement is different in individual cases, and hence its mental manifestations may be various.

1. The gradual development of mind from infancy to manhood, and then its diminution in power as old age approaches, is in exact proportion to the development of brain, when the influence of education and disease are taken into the account.

2. Insanity is a hereditary disease, as weak digestion, deranged hepatic systems, and other peculiar organizations descend from parents to children, and no one hesitates to refer these to the organization.

3. Insanity occurs at all periods of life when the mind is at the highest maturity, when the organization is most perfectly developed, and in the highest degree of activity; hence it is more liable to be over-excited and thus to become diseased.

4. Bodily injuries do often produce insanity. Early dyspepsia, hard study, or labor without rest produce it. Females, during menstruation, pregnancy, and after delivery, often become insane from the influence of powerful and peculiar actions going on in the system.

5. The influence of the weather on insanity, shows it to be

a disease affected by those influences which operate upon the body. The supposed influence of the moon on this disease gave rise to the name "lunacy."

1. *Cerebral Hemispheres.*—Physiologists are agreed "that the gray matter of the cerebral convolutions is the true middle point at which mind touches matter; where impressions become sensations, and the will develops itself into action; and in whose generated force alone (in the present state of being) the intellect finds its means of operation. With the gray matter of this centre no nerve is directly connected; but multitudes of white fibres pass from its cells to unite it with the motor and sensory centres, the ganglia at the base of the brain.

"Morbid affections of the gray substance of the cerebral hemispheres, alone, will manifest themselves in various derangements of intellect. They arise either from deficiency or super-abundance of the quantity of blood supplied to them, or from vitiation of its quality; from the irritation of various poisons, generated within or introduced from without, or from idiopathic inflammation of the substance itself. To this head belong syncope, coma, and delirium in their various shades and complications. Whenever these symptoms appear, whether as the result of disease or of drug-action, we may be sure that the cerebral hemispheres are directly or indirectly affected."*

To understand these morbid conditions, if we imagine the process of secretion "arrested by cutting off the supply of blood," we have syncope. The want of blood may arise either from insufficient action of the heart, or from contraction of the cerebral arteries; the former being the cause of the syncope of Digitalis, the latter that of Hydrocyanic-acid. On the other hand, when the cerebral hemispheres are oppressed by abnormal congestion, we have coma, not the "spurious hydrocephalus of Gooch and Marshall Hall, which is merely a state of cerebral exhaustion for which time is perhaps, the pathogenetic analogue," but the true coma corresponding to oppressed secretion from congestion or effusion; and it corresponds in the former case to Opium, and in the latter, perhaps, to Hellebore. Simple inflammation of the brain gives us, first, increased generation of force, on account of active determination of blood, and secondly, perverted secretion through the irritation of the cells. The first effect of Opium is increased secretion without perversion; while Belladonna, with its congeners, Hyoscyamus and Stramonium, produce perverted secretion without increase (delirium) or with increase (mania)."

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* Dr. Richard Hughes on The Nervous System, London, 1861.

Induration of the brain, from long-continued sub-acute inflammation, is a frequent cause of insanity. In recent and slight cases of this malady, the intellectual faculties exhibit no very prominent derangement, but as the induration progresses and extends, the hallucination becomes more strongly pronounced, until eventually complete fatuity is the consequence. Solly believes that chronic inflammation of the dura mater is a very frequent cause of insanity. In post-mortem examinations of those who have died demented, Esquirol has observed softening or increased density of the brain, adherences of the arachnoid, thickenings, atrophy and defective organization of the brain or cranium.

In monomania, Pinel, Frank, and Esquirol assure us "that organic lesion of the lungs and abdominal viscera, are more frequent than alterations of the brain." The latter writer supposes displacements of the transverse colon to be amongst the most common of these derangements, and this is supposed to account for the constipation and the pains in the epigastric region, which are usually present in this variety of insanity.

Many cases have been reported, in which no organic lesions have been found after death, either in the brain or the abdominal cavity, and on this account some authors recognize a *nervous* or *vital* monomania. It is probable, however, in all cases of mental derangement, that either the brain or its membranes are in a diseased condition, although our ordinary modes of examination may not enable us in all cases to detect it. But whether our perceptions be able to detect the departure from true physical health or not, we are satisfied that every form of mental derangement is associated with physical disease of the brain. It may not in all cases, or even in a majority of cases *originate* there. It is a true *neurosis*, at least, and often originates in the digestive system. The nervous affection of the stomach is, in every case of morbid sensibility of the stomach, reflected on the encephalon, which is then secondarily affected, giving rise to all the extravagant and incongruous imaginations of the hypochondriac. The direct influence of the condition of the brain upon the mind may be seen in a few well-marked phenomena, observed by unquestioned authors. Sir Astley Cooper says: A young man had lost a portion of the skull just above the eye-brow, "I distinctly saw the pulsation of the brain; it was regular and slow; but at this time he was agitated by some opposition to his wishes, and directly the blood was sent with increased force to the brain, and the pulsation became frequent and violent." If we omit to keep the mind free from agitation, our other means in the treatment of injuries of the brain will be unavailing. (*Lectures on Surgery*, Vol. 2, p. 279).

Effect of Sleep on the Action of the Brain.—Blumenbach saw in one case the brain sink when the patient was asleep, and swell again with blood the moment when he awoke. (*Elliotson's Edition*, p. 283).

Dr. Perquin says he saw in the Hospital Montpellier, in 1821, a female who lost a portion of the scalp, skull, and dura mater. When she was in a dreamless sleep, the brain was without motion and lay within the cranium. When sleep was imperfect and agitated by dreams, the brain moved and protruded without the cranium forming hernia cerebri. Vivid dreams protrude it considerably; wakefulness still more. A similar case is given in the Med. Chir. Review, (Oct., 1833, p. 366). When excited by fear or anger, the young man's brain protruded greatly, so as to disturb the dressings, and throbbed tumultuously. Thus the brain, like the muscles, is more fully supplied with blood when in a state of activity than when at rest.

Change of Size of the Brain.—Sir Charles Ball says: (Anat. Vol. II., p. 390), "We have found that the bones of the head are moulded to the brain; and the peculiar shapes of the bones of the head are determined by the original peculiarities in the shape of the brain." Again: "I have seen one striking instance of the skull decreasing in size with the brain. It occurred in an individual who died at the age of thirty-two, after having labored under chronic insanity for upwards of ten years, and whose mental weakness advanced in proportion to the shrinking of the skull. The diminution of his head in size attracted his own attention during life.

Cuvier is still more explicit. He says: "In all mammiferous animals the brain is moulded in the cavity of the cranium which it fills exactly. So that the description of the osseous part affords us a knowledge of, at least, the external form of the medullary mass within." Magendie says "the only way to estimate the volume of the brain in a living person is to take the dimensions of the skull."

Old Age.—Every one knows that at a late period of life we have marked decay of the intellectual power and that the man falls into a second childhood. The pathology of this condition is revealed by the ingenious and accurate investigations of Cauzervielh and Desmoulins, two continental pathologists, who have shown that a kind of *atrophy* of the brain takes place in old persons. Desmoulins found that after the age of seventy years, the weight of the brain was from one-twentieth to one-fifteenth less than in the adult. This atrophy of the brain is connected with old age, and not with any general emaciation; for in cases of chronic emaciation in adults the brain is the last part to waste away; and this may explain the continuation of mental power in phthisical subjects.

Delirium characterizes *inflammation of the periphery* and is commonly wanting in inflammation of the deep-seated portions. Delirium marks disease in that portion of the brain in which the mental organs are located by the phrenologists.

Arachnitis.—"There is a remarkable difference between the symptoms of arachnitis of the convexity of the brain and that of the base. The researches of some celebrated French pathologists led them, after a most careful series of investigations, to adopt this opinion, which are borne out by my own observations and appear to me to be founded in truth. In arachnitis then of *the convexity of the brain*, we have permanent and violent symptoms; early and marked delirium; sleeplessness, and then coma. But in arachnitis of *the base of the brain* the symptoms are more latent and insidious;

there is some pain, and the coma that follows is profound; but there is often no delirium. Pathology shows that we may have most extensive local disease in the *central* parts of the brain, that we may have inflammation, suppuration, abscess, and apoplexy, without the slightest degree of delirium. Indeed the central portions of the brain appear more connected with another function of animal life—that of muscular motion and sensation.—Dr. Stokes, Dublin.

Causes.—The causes of insanity may be divided into moral and physical.

Injuries inflicted upon the Head.—Dr. Winslow says: The importance of this subject cannot be exaggerated. Repeatedly have I had cases of epilepsy bidding defiance to all treatment, tumors, abscesses, cancers, and softening of the brain, as well as insanity in its more formidable types under my care, whose origin could unquestionably be traced back, for varying periods of one, two, five, eight, ten, fifteen, and even twenty years, to damage done to the delicate structure of the brain by injuries inflicted upon the head! Injuries of this character occurring in persons of a strumous habit, or to those suffering from long-continued debilitating diseases, impaired and perverted nutrition, over-wrought and anxious minds, or inheriting a constitutional liability to mental or cerebral disease, are frequently followed by serious and often fatal results.*

Physical Causes.—Medicinal substances capable of powerfully impressing the cerebral organs; irritating gases, as carbonic-acid gas, nitrous-oxyd gas; vapors of ether and chloroform; alcoholic liquors, opium; opiates, and other narcotics: mercury, electric shocks, sun-strokes, excessive labor, violent exertions, straining, masturbation, protracted sea-sickness, exposure to great degrees of heat, sudden exposure to cold water; other diseases, repelled eruptions, excesses in sexual pleasures, drying up of old ulcers, or of accustomed issues; turn of life, suppression of menstrual or lochial discharge, metastases of rheumatism, gout or other disease, syphilis.

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* "Obscure Diseases of the Brain and Disorders of the Mind."

Want of sleep is ranked by Dr. Brigham as the "most frequent and immediate cause of insanity and one of the most important to guard against." Dr. Brigham dwells upon this cause with much earnestness, and endeavors to *impress* upon all, the vast importance of "securing sound and abundant sleep." "Long-continued wakefulness," says he, "disorders the whole system. The appetite becomes impaired, the secretions diminished or changed, the mind dejected, and soon waking dreams occur, and strange phantoms appear, which at first may be transient, but ultimately take possession of the mind, and madness or death ensues. (*Dr. Brigham's Sixth Annual Report*).

Moral Causes.—These comprise: over-exertion of the intellectual powers, violent emotions, excessive and protracted grief or mortification, disappointed love and ambition, jealousy, remorse, anxiety, exclusive and protracted thought upon a single subject, or a single train of ideas, religious enthusiasm, vivid and unrestrained imagination, improper mental education.

Importance of early Physical and Moral Education.—In order that insanity may be averted from those who are physically predisposed to it. "Great pains should be taken to form a character not subject to strong emotions, passions, and caprice. The utmost attention should be given to securing a good bodily constitution. Such children should be confined but little at school, they should be encouraged to run about the fields, and take much exercise in the open air, and thus secure the equal and proper development of all the organs of the body. They should not have the intellect unduly tasked. Very early cultivation of the mind, and the excitement of the feelings by the strife for the praise and the honor awarded to great efforts of mind and memory, are injurious to children, and to those who inherit a tendency to nervous diseases or insanity, most pernicious. In after-life, persons thus predisposed to insanity should be careful to avoid engaging in any exciting or perplexing business or study, and should strive, under all circumstances, to preserve great equanimity of temper."

Several examples are given of murders perpetrated by monomaniacs, some of which seemed to be the result of blind and instinctive impulse, independent of will; others seemed the result of certain processes of reasoning which it is difficult to understand or develop. Various examples have occurred in all countries, in which misplaced sympathy and love of notoriety and the romantic have elevated to a singular species of dignity, the perpetrators of some of the most horrible crimes.

Case by M. Marc.—Augusta Strohm, who when young, had attended the execution of a woman for murder, was powerfully impressed by the scene. The care with which the criminal was prepared for death, the procession to the scaffold, and the execution produced such a strong impression on Augusta that she never got rid of it. From that time she thought it would be the greatest blessing to end her life in that way, and die in a manner equally edifying. For a long time moral principle struggled against the idea of committing murder. On attending another execution the "impulse to crime was energized by what she then saw. A man, aged thirty, was executed for murder, at Dresden. The deportment of this man before the multitude who visited him in prison; the presence of the priest who never ceased to pray with him; the hypocrisy of the culprit himself; the imposing aspect of the military escort which conducted him to the scaffold; the immense concourse of spectators; and the sentiments of sympathy which, in spite of the enormity of his offence, depicted itself upon the countenances of many of the people; the approach of the priest to soften the last moments of his life, together with the promptness and apparent mildness of the kind of death he suffered, changed into a fixed resolve the perverted feelings of Augusta. Six weeks afterwards she invited a young female friend to take coffee with her, and availed herself of an opportunity to strike her with a hatchet. Failing to kill her with this, Augusta finished the work with a few stabs with a knife. She then carefully placed the body in the bed, lay down beside it, intending to remain during the night. But when darkness approached, she began to tremble with apprehension; she dressed herself with care, took her prayer-book, money, and necessary clothing; and delivered herself to the police, directing them to the apartment where they would find the dead body. The further proceedings and final event may be easily inferred.

The success of M. Esquirol in demonstrating the existence of partial insanity has led to a more humane administration of the criminal law; but it is not to be denied that medical men have often been influenced by acute counsellors to detect a case of monomania or "moral insanity," where a little better education and wholesome restraint ought to have made a good citizen. The plea of moral insanity has become so common in criminal cases, that scarcely any murderer omits to try its efficacy, and we regret that that medical testimony in such cases is not more highly respected. In one of the latest murder trials in this city the judge in his charge to the jury said he "could make very little of the medical testimony, either in the case then before him, or any other that he had been called upon to hear." The great frequency of this form of derangement, which is in fact much more common than any other type, indicates the great importance of considering the most effectual modes of controlling or preventing it. The best view of it we find is that given by the Rev. J. Barlow, late Secretary of the Royal Institution, in a small work "On Man's Power over Himself to Prevent or Control Insanity." The principal position contended for by this author is, "that the difference between sanity and insanity consists in the degree of self-control exercised by the individual." Now, when we consider in how many cases insanity is caused by self-indulgence, and to want of that rigid discipline of mind which of all things is the most important lesson, he is required to learn between the cradle and the grave, we see the importance of inculcating everywhere self-culture and self-control. In the first report to which we turn, of 256 cases of insanity produced by physical causes, we find 127, or more than one-half resulted from defective moral control. Of these 64 became insane from abuse of stimulant drinks; from masturbation, 23; libertinism, 24; use of mercury, 16. Among the other usually named moral causes of insanity we find "domestic griefs, reverses of fortune, jealousy, injured self-love, religious enthusiasm." But do not these ordinary trials of temper and moral courage come to us all, and exert what influence they can? And might not some of them, if not moderated by firmness, humility, and correct ideas of the uncertainty and brief duration of human happiness, pervert the powers of reasón? The man of strong mind may be agitated by passion, or lured to evil indulgence by temptation; but he represses the wild thoughts that rush through his mind, and seeks for better and truer impressions from without or within; "the man of weak mind yields to them, and then he is insane." Dr. Conolly truly says: "Seeing that any feeling in excess—the love of pleasure, or of ease, or of money, or of expense, or of applause, or that of self-denial, or anger, jealousy, hope too sanguine, or sorrow too much indulged—may become independent of the restraint of the comparing powers," we must perpetually inculcate the importance of cherishing "that governing and protecting action of the mind by careful cultivation and exercise."

"Whoever will converse with lunatics, will soon be satisfied that a very small portion of them consists of persons whose talents have been regularly and judiciously cultivated." The advice of Crabbe, if followed, would have saved many an unhappy mortal from the sad experiences of insanity:

"But ah! though time can yield relief,
  And soften woes it cannot cure;
Would we not suffer pain and grief,
  To *have our reason sound and sure?*
Then let us *keep our bosoms pure,*
  Our *fancy's favorite flights suppress;*
Prepare the body to endure,
  And *bend the mind to meet distress.*"

ARTICLE XXI.—*On the Importance of a Single Symptom.* Read before the Michigan Homœopathic Institute, September 26th, 1862. By E. M. HALE, M.D., of Jonesville, Mich.

THE relation which sensational symptoms bear to pathological and physiological changes in the human system is a subject worthy the most rigid investigation.

Symptoms are either *subjective* or *objective.* Subjective when recognized by the internal consciousness alone, as in the form of *sensations;* objective when external to the mind, outwardly appreciable, and visible to the senses. Thus a sensation of "fullness in the stomach" without an actual bloating thereof, is a purely subjective symptom; whereas a "bloating of the stomach," with or without the sensation, is an objective symptom, because actual and noticeable. It is important that the physician should carefully distinguish between the two classes of symptoms, because remedies which are applicable to the one are not to the other.

Subjective symptoms are generally dependent on perverted nervous sensibility—a functional derangement of the nervous centres or branches; while *objective* symptoms have for their cause certain pathological changes—structural lesions, &c. Those remedies which specifically affect the *nerves* are indicated for the former; and remedies which affect the other tissues, are useful to combat the latter.

Symptomatology cannot be considered as a science unless it has for its basis the verified facts of physiology and pathology. Hahnemann everywhere taught that the totality of the symptoms constituted the disease; and if we closely examine his writings, we shall find that these symptoms were chiefly *subjective.* The *objective* symptoms which he noted were of an external and obvious character. His teachings everywhere imply, that the latter are of minor importance; that the sensations, pains, &c.—the *subjective* symptoms—were the only ones of *vital* importance.

Symptomatology, as taught by Hahnemann, rested upon a false basis—viz.: that symptoms indicated a perverted vital force. He did not recognize the importance of noting physiological and pathological changes. But I believe, had Hahnemann lived in this day, he would have seized hold upon all the discoveries of modern science, and made them tributary to his system. He would not have declared, that the "totality of the symptoms constitute the whole disease;" but, that the totality of the symptoms, subjective and objective, or pathological, constitute the disease,—and that remedies must *correspond* to *all* these symptoms and conditions, in order to be *specific.*

The object of this paper is to show the importance of *special* symptomatology; or rather, the importance of a *single symptom*, as a guide in the diagnosis of disease. One symptom frequently affords us a clue to a whole series of pathological changes, or aberrations of the nerve-forces, going on within the diseased organism. Collateral, co-existing symptoms are often only assistant guides, whereby we define the peculiar or special forms of a malady;—the same remark holds good in regard to medicines. *One* symptom, developed during a scientific proving, is often of vast inportance, by serving as a *key* to the whole pathogenesy, and defining accurately the sphere of action of a drug. Thus, Aconite has *two* prominent and characteristic symptoms, always present and unvarying—viz.: a benumbing sensation in the nerves, and a distressing sense of anxiety at the *heart*,—both indicating unmistakably a profound depression of the nervous forces. In disease, whenever we meet with either of these symptoms, we invariably infer the nature of the malady and its remedy, unaided by any other symptom, unless it be in complicated cases. If the symptom-in-chief of the drug and of the malady correspond, we have a reliable and sure specific remedy for that malady. To illustrate: there is one peculiar symptom with which all physicians are acquainted, very frequently met in practice, and prominent in many various disorders. It is a symptom so distressing, so unbearable—although it is not a *pain*—that our attention is often called to that *alone;* and patients beg relief from that sensation, forgetful of all others. I allude to a "sinking at the epigastrium," a "weakness at the stomach," a distressing "faintness at the stomach:" or, as some quaintly describe it, "an awful *goneness* at the stomach." Now, this symptom is an index of so many different physiological and pathological states, that it will repay us to study the subject more closely than we perhaps have done. This for several reasons:—*First*, that we may more readily, by aid of collateral symptoms, diagnose the diseased condition which gives rise to this sensation. *Second*, that we may more readily select the proper remedy wherewith to remove the symptom, and with it the morbid condition upon which it depends.

I know of no one symptom which gives us so much trouble;

no one a source of greater perplexity. I have often, in the earlier part of my practice, spent hours over our repertories to find a corresponding drug symptom, which, after being found, failed to afford relief. Experience and study have taught me the reason of my failure: the want of thorough correspondence between the medicine and the morbid condition present.

The symptom above mentioned—the "sinking of the epigastrium"—may be present in each of the conditions to be enumerated. It will be the object of this paper to point out its diagnostic value in each case, and indicate the most appropriate remedies for the removal of the morbid state upon which this symptom depends.

Before mentioning the *abnormal* conditions which we meet with in this symptom, it should be mentioned, that it may depend upon a natural physiological state—*i. e.*, *Hunger*. According to Carpenter, "the intensity of this feeling bears no constant relation to the amount of solid or liquid aliment in the stomach. * * Mere *emptiness* in the stomach cannot occasion it; * * or the stomach may be filled with blood, and yet hunger may be intensely felt. Again, hunger cannot be due, as some have supposed, to the action of the gastric juice upon the coats of the stomach, since the fluid is not poured into the stomach except when the production of it is stimulated by the irritation of its secreting follicles." Dr. Beaumont thought, that the distension of these follicles with the secreted fluid is the proximate cause of hunger. Carpenter objects to this, on the ground that the gastric juice is not secreted when it is not required; he offers the following supposition, which seems the most plausible theory: "that there is a certain condition of the capillary circulation in the stomach, which is preparatory to the secretion, and which is excited by the influence of the sympathetic nerves that communicate (as it were) the wants of the general system. When food is introduced into the stomach, the act of secretion is directly excited, the capillary vessels are gradually unloaded, and the immediate cause of the impression on the nervous system is withdrawn." The experiments and observations of M. Bernard on the condition of the gastric follicles during the intervals of their functional activity, seem to confirm this view of the matter.

Hunger, then, may be considered to depend upon a *hyperæmia of the capillary vessels of the stomach. Food* is the specific remedy in such cases. But, as in other instances, there is often but one step from a normal to an abnormal condition of any organ or tissue. It often happens that the presence of food in the stomach does not relieve the "sinking sensation"—the "feeling of hunger." This we often notice during convalescence from acute diseases. In such cases it must be obvious that the hyperæmia is abnormal in its character—of more than natural intensity, owing probably to a debilitated condition of the capillary vessels. This condition, often termed "canine hunger," will disappear with the debility, or may be removed by *minute* doses of China, Nux-vomica, or Sulphuric-acid. I say *minute* doses: for unnatural hunger is a primary symptom of these drugs, and material doses would only aggravate the existing condition.

Hyperæmia, or congestion of the stomach, from any cause, may produce this symptom under consideration. Among the agencies which develop this condition may be mentioned all stimulating drugs, liquors, &c., or those substances which act as local irritants upon the lining membrane of the stomach. Thus, epicures often take mustard, horse-radish, brandy, and vinegar to induce artificial hunger, or "sharpen the appetite" —a most reprehensible proceeding, which leads sooner or later to that worst form of dyspepsia, a degeneration of the gastric glands. The use of the so-called tonics, to increase the appetite and stimulate digestion, is another equally mischievous practice, which may seem to do well for a while, but often ends in inducing atony of the stomach, and a persistent enfeebled digestion—a secondary effect. Yet in our hands these remedies—viz.: China, Nux-vomica, Ignatia, the acids, Columbo, Hydrastin, and Helonin—are potent specifics, when administered in small doses, for the removal of the very conditions which they cause. When administered for the cure of canine hunger, or hyperæmia of the gastric mucous membrane, the dilutions from the third to the twelfth are most efficient, because given for their primary effects;—when given for their secondary effects—atony of the stomach, &c.—the lowest dilutions should be used; but their administration should cease *the moment the appetite returns.* When gastric hyperæmia is caused by local irritants, the antidotal measures most efficient should be used, together with such palliative means as have been found useful.

In *gastric flux* we find this symptom in its greatest intensity. Chambers ("Disorders of Digestion," p. 291) says: "In mucous flux, when the whole or a greater part of the stomach is covered with mucus, * * * there is then a sensation of uneasiness, scarcely in the majority of cases amounting to actual pain in the epigastrium, coming on most at times when the stomach is empty. It is at first accompanied by a craving for food; but no sooner is any taken than it excites a feeling of weight and distension within a very short time, often only relieved by actual vomiting." * * Patients will say they have no appetite, but that there is an emptiness and "sinking" in the stomach. "The cause of this craving," says Chambers, "is probably, that the nerves of the stomach-glands and other parts concerned in the secretion, are brought by mucous flux into the same state as they are by hunger, without being able to relieve themselves by pouring out the juice. Hence the craving cannot be called a "*false sensation;*" the sensitive nerves are not in fault, but the mucous membrane which has deceived those nerves.

In the treatment of gastric flux, the most homœopathic remedies are Pulsatilla, Mercurius, Hydrastin, Cubebs, Antimony, Sulphur, and Ipecac. Should it be associated with muscular atony of the stomach, Nux-vomica and Ignatia, or the Citrate of Iron and Strychnine will be found powerful and efficient auxiliaries. Chambers recommends the careful use of Mercury, the Hyposulphate of Soda, Kino, and Ipecac.

This "sinking sensation" is present in many other affections of the stomach and disorders of digestion, such as gastritis, catarrh, degeneration of the glands of the stomach, ulcer, cancer, and other organic diseases of that organ. In cases where there is *excess of gastric juice*, we have a sensation of "gnawing," or craving, which calls for the use of remedies which will check the abnormally increased secretion. The most prominent of these are *Nux-vomica*, Ignatia, Hydrastus, and China.

In *anæmia* and *general debility* we find this symptom often troublesome; nor will it give way to any remedies except those which restore the tone of the whole system. Thus, in *anæmia* we must use small doses of Iron in some form; the Phosphate, if there is much emaciation and nervous debility; the muriated Tincture, if the debility is extreme, and the other symptoms correspond with those of Muriatic-acid; the Carbonate, or pure Ferrum-metallicum in simple cases;—but in most cases Iron will have to be alternated with Nux-vomica, Ignatia, Hydrastus, Helonias, or China. The Citrate of Iron and Strychnia has been very successful in my hands. The mineral acids are very efficient, if indicated by the general condition and symptoms. But all these medicines may fail us, unless our patient cultivates a cheerful *morale*, takes exercise in the pure open air, and eats cautiously; a little pure grape wine is often useful.

In *congestion*—active or passive—of the *liver* and *portal system*, we find this symptom exceedingly severe and troublesome. In these conditions, the "sinking" sensation is accompanied by sensations of "oppression," "tightness" and "faintness," and may be caused in part by the increased size and weight of the liver, its pressure against, or dragging upon of the diaphragm. There may be present vomiting, diarrhœa, or constipation; the alvine evacuations may be saturated with bile, or destitute of that secretion. In the diseases of our western country, particularly in malarious districts, in nearly every case our patients complain persistently of this distressing symptom. They can bear the fever, pain and other concomitants of disease, better than this "dreadful faintness." It appears during the paroxysm of fever, and even in the intermission; and will remain until the portal system is unloaded, and the hepatic congestion is removed. The dominant school rely upon the free use of Calomel and Blue-pill, aided by laxative doses of the neutral salts; as palliatives they recommend Valerian, Opium, Ammonia and Brandy. Could we obtain no *better* remedies, this treatment, much modified, might be justifiable, but the homœopathist has remedies which, if judiciously used, are much to be preferred. If there is much fever present, Aconite and Veratrum-viride are indispensible, but whether fever is present or not, *Mercurius* is one of the chief remedies in this affection. But we must not expect to remove the morbid condition with the high potencies of this drug, unless the symptoms simulate its primary effects. If we have excessively bilious stools, fever with sweat, pains in the bones, and flabby, pasty tongue, the sixth and even the twelfth potency may suffice, but in cases showing other symptoms, we must use the lowest triturations, or we shall fail to relieve our patients. Often trying faithfully and uselessly all other remedies, and Mercury in small doses, I have succeeded in removing this condition, promptly, with a single grain of blue-mass, just enough to move the bowels gently. And if homœopathy means triturated and diluted medicines, which I strongly deny, we may still be homœopathists, and use blue-mass, for that preparation is nothing more than the first trituration of Merc.-viv.* in the conserve of roses, instead of sugar of milk.

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* Note.—In the formation of blue-pill for internal exhibition, metallic mercury is triturated with confection of roses and powdered liquorice-root, in the proportion of one-third of the whole weight, until its globules are mixed in, and reduced to so small a size, that they cannot be distinguished with the naked eye. Dr. Headland ("On the Action of Medicines,") says that "during these processes, on account of the subdivision of the particles of mercury, an infinitely larger surface is exposed to the action of oxygen, and an appreciable quantity of oxide is formed." This theory has some analogy to that of Hahnemann, who believed that trituration, subdivided the particles of metal until they became *imponderable*, or capable of solution in the blood, or nervous fluid (if there be such a fluid). Dr. Headland believes that *metallic* mercury is never absorbed into the blood, but that the oxide or protoxide is the active soluble agent in blue-pill and some other preparations. Unlike the metallic mercury, it is soluble in many of the animal fluids. The acids of the gastric juice, butyric and lactic acid; so are the secretions of bile, saliva, and mucus. Dr. Nevins finds that blue-pill contains three-quarters of a grain of the protoxide in 100 grains, which gives one-quarter of a grain to 33⅓, or according to homœopathic notation, blue-mass is the $\frac{1}{133}$ of Mercurius-viv. less than the first centessimal trituration. Yet Dr. Law has shown that one-twelfth of a grain of blue-pill given every hour, for twenty-four hours, will cause salivation." Again if the protoxide is really the active agent, we shall find that our first $\frac{1}{100}$ trituration contains only $\frac{1}{5856}$ of a grain. Well may Dr. Headland exclaim: "It is an agent of terrible activity, and we may well be cautious how we handle it." E. M. H.

The same which I state in regard to Mercury, may be said of Podophyllin, Leptandrin, Iris, and Aloes, all of which are useful and sometimes indispensible in this affection. We must always recollect, that in treating disease, our sole object should be, to relieve and cure our patients, not to adhere, blindly, to any particular dogma or theory. Therefore, in treating hepatic and fatal congestion, if the dilutions do not cure, use enough of the lowest triturations to produce the desired effect. In some cases palliatives are imperatively demanded. If fever is present use lemonade or orange or white of egg-water; if not, give wine-whey, beef-tea, or Ammonia.

Hæmorrhoids are often preceded or accompanied by this "sinking sensation" at the epigastrium. When this symptom is premonitory of an attack of piles it probably depends upon portal congestion, for the two congestions, portal and hæmorrhoidal, alternate with each other. The "sinking" generally subsides with the turgescence of the hæmorrhoidal veins, but sometimes continues afterwards, in which case the symptom is due to reflex irritation. The treatment of this symptom, when it is a premonitory one, is but conducted by Aconite and Hamamelis. The large influence which this latter drug has over venous engorgements, points it out as one of the most prominent remedies in such affections. Aloes and Podophyllum, or Nux-vomica and Sulphur, should be administered in the lowest triturations. Allopathic authorities advise that sufficient quantities of these drugs, particularly Aloes, be given to determine the blood towards the hæmorrhoidal vessels. In most cases this is not necessary, yet I have met with a few wherein the distress was so obstinate and persistent, that I was obliged to administer ten grains of the first decimal trituration, inducing increased activity of the intestinal movements and rapidly relieving the patient. There are other auxilliary means, such as warm injections, warm hip-baths, and a low laxative diet, which we may find advantageous to resort to. This sensation often depends upon an affection of the nerves, either reflex or primary. It is maintained by Brachet that section of the pneumogastric nerves annihilates the sense of hunger; it follows that the same mutilation would destroy the recognition of this symptom by the brain. Any *irritation* of these nerves, would, as a matter of course, *cause* a false sense of hunger, or the peculiar "sinking at the epigastrium," which forms the subject of this paper. Medicinal agents then, which have the power to irritate these nerves, will prove to be the scientific homœopathic remedies for the removal of this symptom when it depends upon a similar cause. Gelseminum, Aconite, Veratrum-viride, Tabacum, Digitalis, Ignatia, and Lobelia belong to this class.

Nervous depression is a prominent cause of this symptom. This condition may be caused by continual wakefulness, exhausting mental labors, by various diseases, but above all, by the influence of *mental emotions.* I will here mention one diagnostic symptom, which always indicates the nature of the sensation when it depends upon nervous aberrations. I allude to the increased flow of limpid urine which always attends conditions of nervous exhaustion. This urine contains large quantities of the alkaline phosphates. Carpenter says this phosphatic urine always accompanies the *wear* of mind, whether by intellectual exertion, or by the excitement of the feelings.

The emotions of fear, grief, joy, or anxious expectation, are nearly always accompanied by a sinking sensation at the epigastrium, *and* copious diuresis. I have often been applied to by healthy and robust men, public speakers, who suffered from this symptom before any public effort. Stimulants, such as brandy only increased the difficulty. In most cases, a few years of public life brings immunity from such sensations, in others they persist in spite of all remedial means. We may try those medicines which improve the tone of the nerves, and impart to them their vital constituents, such as Phosphoric-acid, the alkaline phosphates, Iron, Ignatia and Nux-vomica. When caused by *fear*, the best remedies are *Ignatia*, Aconite, Phos.-ac., Platina, Pulsatilla, Veratrum and Strammonium. If from *grief*, *Causticum*, Ignatia, and Phos.-ac. If from *joy*, Coffea, Cannabis-indica, and Crocus. We notice the symptom in *cerebral congestion and inflammation.* The sighing respiration, and the restlessness all point to this sensation. Add to this the fact shown by Dr. Bence Jones, that "acute affections of nervous substance, both organic and functional, are generally attended with an increase in the phosphatic salts in the urine, the amount of phosphates in acute imflammation of the brain seeming to be proportional to the intensity of the inflammation.

In hydrocephalus this epigastric sinking must be present, for children will eat ravenously, even in the advanced stages. It is one of the most notable symptoms of that protean malady, *Hysteria.* I have frequently noticed in practice that this sensation often proceeded a hysterical paroxysm, and was one of the most aggravating symptoms of which the patient complained. Here, as in other instances of nervous-aberration, it was attended by profuse urination.

In the selection of a remedy in a case of hysteria, this subjective system is valuable as a guide. From its presence we are led to administer the Cimicifuga, or Ignatia, or Asafœtida The first-mentioned medicine, or its alkaloid, Macrotin, has among its verified symptoms, a "sense of internal tremor in the stomach after breakfast,"—"faintness in the epigastrium, with repugnance to food." This last symptom is always noticed from over-doses of the drug, or from a persistence in small doses, and according to Dr. Mears, depends upon its impression on the brain. When we associate this with the remark of Dr. Chapman, that it causes "nervous tremors, with great uneasiness,"—and the assertion of Dr. King, that it has been known to produce all the symptoms of *delirium tremens,* "we can readily imagine the fearful influence which the Macrotin has upon the nervous system, and how potent it may become as a remedy for nervous disorders. In hysteria it is an agent upon which I place great reliance.

One of the first symptoms which precede many kinds of *nausea* and *vomiting*, is a peculiar faintness emanating from the stomach. But this faintness is not always confined to the stomach, but pervades the cavity of the thorax. The pathological condition present, varies with the character of the vomiting, or its various causes. Sometimes we have portal congestion, or capillary congestion, or local irritation from drugs, or improper food, or it may be a purely nervous phenomena, or reflex, like the vomiting of pregnancy. Vomiting, however, is not always caused by diseased conditions of the stomach.

Chambers says: "The most natural explanation of vomiting seems to me that which would represent it as a relaxation, or temporary paralysis of the longitudinal fibres of the stomach and œsophagus, and a spasmodic contraction of all the circular fibres at once." Other authors speak of most obstinate and incurable vomiting from inflammations and paralysis of the œsophagus. Now, in nearly all diseases of the œsophagus, this "faintness in the stomach, extending up to the glottis," is nearly always present. *Chambers* says, "when vomiting follows excessive mental emotion, the nerves of the gullet experience a temporary paralysis; so that vomiting is produced by disappointment, surprise, anxiety,—nay, even joy and pleasure." When, then, this "sinking sensation" or faintness accompanies vomiting from mental causes, we must select for its cure such remedies as Ignatia, Lobelia, Tobacco, Macrotin and Pulsatilla. When it attends vomiting from other causes, we have Ipecac, Tartar-emetic, Podophyllum, Phytolacca, Bryonia, Nux-vomica, Veratrum-album and Viride, and many others.

In *verminous* affections we find symptoms of gnawing—emptiness, faintness, and canine hunger. It has been supposed that these sensations proceeded directly from the irritation of the internal coat of the stomach by the entozoa themselves. Such may be the case, but we have no actual proof of the matter, except in cases of the tricocephalus, which appear to have the power of inserting its head into the mucous membrane. It may result from nervous irritation, or in other words, be a secondary, rather than a primary symptom. It is a popular belief that the canine hunger, of worm affections, is an actual hunger, from the appropriation of the food, by the worms themselves, thus diverting it from its legitimate uses. There may be instances, as in cases of tænia, or excessive numbers of the other varieties, where the above alleged cause may have obtained. When we are called upon to treat this symptom of "epigastric faintness" in worm affections, we should first aim to expel or destroy the entozoa by appropriate remedies. For the *tænia* we may use the Felix-masculina and the Curcubita, or oil of pumpkin seeds, which just now has a great reputation for the expulsion of this parasite; for the *ascoris lumbricoides* and *tricocephalus dispar*, the Santonine is a sure and reliable poison. A few grains of the first trituration, given in a little sweatened milk, effectually destroys them; for the *ascoris* vermiculoris, the *Teucriums*, seems to be the best remedy. After taking a few drops of the tincture or lower dilutions, for a few days, the worms are generally expelled in immense numbers and generally in a living state. Teste claims that Veratrum, Ipecac, and Lycopodium, are specific in *ascarides*, and I have often seen the symptoms caused by these little parasites disappear after the use of these remedies.

You will often be asked by parents whose children you are treating for these affections, why the worms do not appear in the alvine discharges? It is a question easy of solution. We know that the gastric juice has no digesting effect upon *living* tissues, else would the stomach be eaten up by this fluid. After death this indeed is the case, for the stomach has been found perforated in many places, from the action of the gastric juice. Therefore, when we destroy worms by the action of worm-poisons, they are immediately digested, unless expelled by the action of some prompt and powerful cathartic. Even in case of *intestinal* worms, I doubt if they remain more than a few hours, without disintegration. Instances have been known of snakes, eels, frogs and other animals remaining in the stomach in a living state for a long time, or until destroyed by the actions of drugs. The remedies which may remove this symptom of faintness when induced by worms, are Cina, Sabadilla, Spigelia, Camphor, Gelseminum, and Veratrum-alb.

One of the most unpleasant symptoms of glucose *diabetes* is the one now under consideration. Wood, after mentioning other characteristic symptoms of this disease, mentions that along with the excessive thirst and hunger, and probably contributing to them, are a parched state of the mouth and fauces, and a sensation of *hollowness or sinking*, *with faintness at the pit of the stomach.*

When we come to investigate the pathology of glucosuria, we readily comprehend why this peculiar symptom should be present. It is probably *not* owing to the presence of sugar in the blood, especially in that of the portal system, although its presence in those vessels may contribute something to the intensity of the sensation; but its chief cause is the excessive hyperæmia and hyperæsthesia of the kidneys, together with the profound nervous exhaustion so prominent in this malady. We judge this to be the case from the fact that this symptom is also present in diabetes insipidus, in nervous diuresis, and in all instances of profuse urination, even when caused by the action of drugs. Thus Digitalis, Apocynum, Squilla, Apis, and Turpentine all induce this symptom along with their diuretic action. Indeed, so constant is the relation between the diuresis and the sinking at the stomach, that when one is present, the other is hardly ever absent. This leads us directly to the treatment of the various forms of this disease, the homœopathic treatment of which is, I believe, far superior to that adopted by the dominant school. There are several drugs which are capable, when given to the extent of pathogenetic saturation, of causing similar pathological conditions to those present in these diseases. Prominent among them is the *Nitrate of Uranium*, which has, so far as used, given satisfactory results. *Mercury*, according to Wood, has caused saccharine diabetes, and some members of our school have found it curative in small doses. Phosphoric-acid is strongly recommended, and has certainly proved useful, although we do not know from actual observation that it has caused this form of the disease; and Canth., Cannabis, and Turpentine belong to the same class. In the treatment of diabetes insipidus, and in that form which is so constant in some forms of nervous disease, the Phosphoric-acid is by far the best remedy we possess; it acts by restoring the lost phosphorus of the system, and thereby increases the tone of the nervous centres. Phosphorus is often equally useful. *Zinc* is said to be to the nervous fluid what Iron is to the blood; and certain it is, that the Valerianate of Zinc, and also the Phosphate, are sometimes of great value in the treatment of severe and obstinate nervous affections. Upon the recommendation of Wood, I have used the Turpentine in some cases with excellent curative results; but succeeded as well with the one-hundredth of a drop, as he with his massive doses of five and ten drops. The Nitrate of Uranium is also useful in relieving these cases, as well as in those where sugar is present in the urine. The same may be said of Mercurius.

There is one fact in relation to the treatment of non-saccharine diabetes, to which I wish to call your attention, as upon its comprehension will depend much of your success in its treatment. In all cases of abnormally profuse urination, you should ask yourself the question: Is this a *primary* or *secondary* affection? Has it been preceded by *scanty* urination from disease of the kidneys? Or has it been preceded by cerebral congestion? In the former case you will find that Aconite, Gelseminum, or Veratrum-viride will be the proper remedies. In the latter Belladonna, Opium, Gelseminum, Strammonium, and Hyosciamus are suitable; for in the study of the pathogeneses of these drugs you will find, that *after* the brain had been excited or congested by them, came the increased action of the kidneys.

In primary diabetes or diuresis, the so-called diuretics are obviously appropriate. The Apocynum, Squilla, Apis, Turpentine, Cannabis, and some others strictly belong to that class. Digitalis is not primarily a *diuretic.* It is not until the functions of the heart have been depressed, the pulse rendered feeble and intermittent, that its diuretic power begins. The same may be said of Aconite, Veratrum-viride, and Gelseminum. This reminds us, when mentioning the heart, that one of the most distressing symptoms of endo-carditis, pericarditis, and dropsy of that organ, is this very "sinking at the pit of the stomach." According to my observations, it does not generally obtain until the first stage has passed, although I have in certain cases observed it in acute congestions. We can thus understand why it is that *Aconite*, Digitalis, Veratrum-alb. and viride, Spigelia, Cimicifuga, and Colchicum have this symptom so clearly developed; you will not find it in the provings of all these medicines, but it may be met in records of some cases of poisoning by these powerful agents.

In the treatment of the diseases of females, you will frequently be asked by them for relief from this epigastric faintness. Often it is the first symptom noticed by the patient, who may be suffering from uterine congestion, prolapsus, and other forms of uterine dislocation, pregnancy, and the "change of life." It is a prominent and leading symptom in all these conditions, and so constantly present that you may with a good deal of certainty inform your patient, who has this sensation, that she is suffering from some form of uterine disease. It often appears before any local pain or uneasiness has manifested itself, and is a beautiful example of that reflex action which Tyler Smith has described with such masterly skill.*

That the epigastric uneasiness is a reflex action there can be no doubt. It cannot depend alone upon mechanical causes, such as the descent of the bowels in cases of prolapsus; for I have known simple uterine congestion, or the stimulus of conception, to cause this symptom before there was any appreciable alteration in the position of the uterus. In very bad cases of proccidentia uteri, the mechanical influences may have something to do in the production of a *dragging* sensation at the stomach; but not to the faint, hollow sensation under consideration. The remedies for this symptom in these cases must of a certainty be those which are capable of causing similar changes in the condition of the uterus. For acute congestion Aconite and its congeners, and Belladonna and its analogues, nearly all of which may sometimes be indicated; also Sabina, Crocus, Platina, Podophyllin, Caulophyllin, Macrotin, Secale, Sanguinaria, &c. If caused by prolapsus or retroversion, we must call to our aid Macrotin, Helonin, Nux-vomica, Ignatia, Podophyllin, Belladonna, Secale, Sepia, and other similarly acting remedies.

Nor must we forget to use those mechanical supports which are capable of aiding us so much in the treatment of these displacements. They do not have any curative effects in themselves any more than the splints the surgeon places upon the fractured limb; but they remove those obstacles in the way of a cure—such as the strain upon the vaginal muscles—and give a better opportunity for our specific remedies to act. It is as irrational to ignore the value of properly constructed pessaries in these cases, as it would be to reject bandages and splints in the treatment of fractures. After much experience with the various forms of pessaries, I am decidedly in favor of the vulcanized rubber elastic rings, lately brought into use; they are as applicable in retroversion as in prolapsus, which cannot be said of any other form of the instrument. They are more cleanly, give rise to less irritation, and are more easily placed *in situ;* and finally, can, in the hands of an intelligent woman, be placed without calling in the physician, when necessary to be extracted for cleansing or other purposes. I have often noticed, that immediately upon the introduction of the pessary, elevating the uterus into its normal position, the patient would mention an alleviation of the faintness at the stomach; it would not disappear wholly for some time, or until the congestion of the uterus had been removed.

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* Dr. Marcy, in the published provings of Cannabis-ind. by the American Provers' Union, relates a case in point: "A lady, aged forty, had been confined to her bed for several months, with a morbid sensitiveness and great prostration of the entire nervous system. * * * On attempting to make the slightest effort in rising up in bed, or in making any exertion, she experienced a great sense of prostration and a *death-like sinking and weakness at the pit of her stomach*, and to some extent in her chest." This distressing symptom is very common in females at the climacteric period. Dr. Marcy gave Cannabis-indica, and in six days she was able to sit up fifteen minutes, and in six weeks was able to be up the entire day. H.

In hysteria from uterine displacement, this symptom often constitutes the whole attack; and I have often arrested the continuance of the paroxysm by elevating the uterus, prescribing the elevated posture with elevated hips, and the appropriate homœopathic remedy.

In writing of the climacteric period, or "change of life," in woman, Tilt remarks, that whenever irregular menstruation is attended with a "sinking feeling" at the pit of the stomach, with flushes of heat and perspirations, even though their age may be only between thirty and forty, it is a warning of the commencement of this "change." This author places much stress upon this feeling of "sinking or depression at the stomach; not an actual pain, but an irritating and tormenting sense of a want of support, or of emptiness." He met with these sensations of faintness, exhaustion, &c., in 26 out of 100 cases. My observations would lead me to place the estimate still higher; indeed I do not now remember a case in which this symptom was not in some degree present.

In these instances it may be both a *reflex* and a general symptom, induced on the one hand by uterine engorgement and irritation, on the other by general nervous exhaustion.

The treatment of this symptom, or rather of the conditions upon which it depends, should be conducted with great circumspection. The remarks of Ashwell are so appropriate that I cannot forbear quoting them. "No more serious mistake," he says, "can be made, than to attribute any of these symptoms to debility, rather than to repletion, without the most accurate inquiry." Owing to the distressing sensations, particularly the symptoms of faintness, &c., small quantities of spirits are prescribed, and are always gladly taken by the patient, as are nearly all stimulants and tonics; but their effects, if alleviating, are only so for a short time; their permanent influence is most mischievous. If, however, menorrhagia has reduced the patient, moderate quantities of wine, a nutritious diet, and China or Helonin may be useful. For this nervous faintness and exhaustion, Leadam recommends Valerian, Veratrum, Nitric-acid, Kali-carb., and Moschus. Others recommend Lachesis, Pulsatilla, and Aconite. All are useful in their place; but we must select the remedy in strict accordance with the pathological condition, if that can be ascertained. It may arise from portal congestion mainly, and require Sulphur and Aloes. If it depends solely on uterine irritation, Macrotin, Ignatia, Pulsatilla, and Caulophyllin have proved most useful in my hands.

In those conditions which result from sexual excesses, onanism, or spermatorrhœa, we meet with this epigastric sinking. Here again, as in case of uterine diseases, it is partly a reflex and partly a general symptom. No other causes tend so thoroughly to depress and exhaust the nervous vitality as those last mentioned, and no other condition requires such cautious and judicious treatment. In no disease or condition is the value of a correct rule for the selection of the proper dose so apparent and important.

In our study of the abnormal condition we are treating, we must carefully distinguish between the primary and secondary symptoms. Is the general loss of strength, the mental depression, and the local debility the result of some cause acting primarily upon the vitality of the sexual organs? If so, we must select our remedies from that class of drugs capable of primarily causing similar conditions; these are Agnus-castus, Camphor, Caladium, Bromide of Potash and Bromine, Salix-niger, Gelseminum, &c. These should be administered in the dilutions from the third upwards, and will prove excellent remedial agents. But if, on the contrary, the general and local debility have been caused by a previous morbid excitation of the sexual organs, then such remedies as Cantharis, Cannabis, Nux-vomica, Platina, Phosphorus, and Phosphoric-acid should be selected; and these, to prove curative, should be administered in the lowest dilutions, from the third to the first decimal.

Again, there are cases where the two opposite conditions mentioned above seem to be blended. With the general exhaustion, we have an irritable and excited state of the sexual organs. Here we must alternate the remedies of the first group with those of the second, reversing the strength of the medicines heretofore mentioned, thus: Caladium, 1, with Phosphorus, 30; or Bromide of Potash, $\frac{1}{10}$, with Nux-vomica, 3, and so on.

It is a noticeable fact, that all these drugs cause a weak feeling at the stomach; *Caladium* in particular,—a valuable drug, but used very seldom, because not appreciated—has together with its symptoms of complete impotence, great mental depression, and tendency to faint, a "sensation of hollowness at the stomach,—eating relieves it somewhat, but he has no appetite." We find this symptom present in all those medicines especially, which primarily depress the vitality of the reproductive functions.

Finally, the following general deductions may be laid down regarding this symptom, to which I have called your attention.

First. It is either a primary or a secondary symptom.

Second. It depends either upon local congestion, or general nervous exhaustion.

Third. It may be an idiopathic or a reflex symptom, caused by some local irritation of the gastric nerves or mucous tissues, or upon an irritation of some distant organ.

Fourth. The specific curative remedies for this symptom are those which are purely homœopathic in every essential particular.

Article XXII.—*Malaria—Atmospheric Diffusion. Infection of the Wind.* By E. M. Lazarus, M.D., New-York.

Currents of air are susceptible like soils and waters, of being rendered the media of pestilential influence. Independently of their temperature and of their dew-point, which can only coincide with general tendencies to confirm or to prejudice health, they evidently transmit from one point to another, the determining causes or fomites of endemics and epidemics, each distinct and well defined in its nosologic characters.

Let us cite but a few illustrations which nature seems to have prepared with the experimental acumen of a Majendie or Bernard operating in his laboratory.

Mr. Ferguson speaks of the port of Prince Rupert's, in the island of Dominica, a peninsula composed of two hills with an intervening valley lying in the same line from the mainland, to which the inner hill is joined by a flat and very marshy square isthmus, three quarters of a mile in extent. The base of the inner hill occupies the whole width of the narrow isthmus, and rises perpendicularly so as to shut it out completely from the port. The valley between the hills is very clean, dry, and presents the usual guarantees of local salubrity. The outer side of the inner hill presents, near the top, a platform, convenient for millitary barracks, raised 300 feet above the marsh on the inner side, and completely concealed from it by the crest of the hill. The valley proving unhealthy, the barracks were removed to this spot, but it had to be speedily abandoned, for it was so pestiferous that no white man could live there. Other barracks had been constructed on the outer hill at the same elevation, or very nearly so, but only 500 yards farther from the swamp; yet they were found perfectly healthy, not a single case of fever having occurred there.

Here we find the fever cause radiating from its usual malarial foci, wafted by the air up the side of the first hill and descending into the valley, between the hills, losing at every rod a part of its intensity as it becomes diffused in the breezes from the sea on either side, so that at 500 yards distance, it ceases virtually to exist.

Lancisi, in his great original work "De Noxiis Paludum Effluviis" 1695, relates that one day thirty ladies and gentlemen had sailed to the mouth of the Tiber on an excursion of pleasure. Suddenly the breeze shifted to the south and blew over a marshy tract of land to their windward. Twenty-nine out of the thirty were attacked with tertian ague immediately afterwards.

Humboldt accuses the north-west wind of tormenting the people of Cariaco with agues absorbed in the Laguna of Campona.

It is not the stratum of air lying next to the soil which is most readily put in motion, nor is the line of malarial radiation the horizontal, for the low-lying grounds of, or immediately contiguous to a swamp, are often found less febriferous than the side of a hill beyond, on which the breeze strikes, and up which it mounts to a certain height. For a calm state of the air and for temperate climates, the horizontal radius of malarial diffusion has been estimated at about 300 metres, and its vertical diffusion at 400 or 500 cubic metres. This estimate must vary with the hygrometric and barometric variations, and is subordinated to the temperature. The intensity also varies from year to year. The endemic fevers of Holland sometimes, as it is observed, assume an endemic constitution, and the miasm, which occasions them, has been sufficiently intense to be carried by an east wind over into England, and there to propagate the same type of pernicious intermittent at points where marsh fevers were unknown.

On one of these occasions, in 1826, the hospital of Woolwich alone received 300 cases. Similar visitations occur in the usually healthy districts of Corsica and of the Carolinas, and numerous hypotheses have been devised to account for them. Fevers depart in their type from the continuous in proportion to the distance from summer heat, as likewise to that of altitude above the sea, forming graduated series in continuity of type and frequency of occurrence down to the rarest intermittence.

In 1816, as Dr. Ferguson states, the British garrison of the English harbor, Antigua, was disposed in three separate barracks on fortified hills surrounding the dock-yard. One of the barracks was on an eminence, named Monk's Hill, six hundred feet above the level of the marshes. The other two were situated on an eminence, called the Ridge, one at the height of five hundred, and the other at the height of three hundred feet. So pestiferous were the marshes among which the dock-yard was placed, that it often happened to a well-seasoned soldier coming down from Monk's Hill and mounting the night-guard in perfect health, to be seized with furious delirium while standing sentry, and to expire within less than thirty hours after being carried up to his barracks with a yellow skin, and having had black vomiting. Those in the barracks on Monk's Hill (600 feet) who did not come down had no fever of any kind. Seven artillery men in the barracks at the height of *three hundred feet* did not come down to the night guard. They were all attacked with remittent fever, of which one of them died. At the barracks at the height of *five hundred feet* there scarcely occurred any fever worthy of notice. In the neighborhood of the Pontine marshes, experience has taught the people to perch their villages among the hills.

A common impression is uttered in the phrase that "malaria loves the ground." In all malarious seasons and countries, says Dr. Ferguson, the inhabitants of ground floors are uniformly affected in a greater proportion than those of the upper stories, and this proportion, according to military statistics from different points in hot climates, has varied from one-third to three-fourths.

This is not a simple question of altitude, for it is well established, that in many places the marsh level itself is less unhealthy than the rising ground near it.

General Marcy, of the U. S. A., has mentioned to me with surprise the fatal insalubrity of the bluffs along the Missouri for several hundred miles above its junction with the Mississippi. They pretend in that country that the miasm rises from the surface at an angle which overshoots the heads of men upon its level, and as it chiefly rises after sun-down and early in the morning, those who avoid exposure at those times are little affected by it. The Convent of Carualdole, situated upon a high hill, three miles from Lake Agnano, is still subject to fevers. The elevation and comparative insulation which offer a guaranty against plague and yellow fever, and cholera, most distinctly do not equally protect against the less intense types of remittent and intermittent. We must then attach much importance to the circumstance of immediate contact with the soil, implying for the lowest floor of the house more dampness, a lower degree of electric tension.

Barbadoes, the malarial district of the West Indies, for salubrity is moderately elevated, clear of wood, without swamps, and is generally well cultivated. It is, therefore, comparatively a dry situation. Still it is subject to the usual vicissitudes of tropical climates, great and sudden variations in the electric states of its surface, and is occaionally visited, as Dr. Wilson tells us, "with fever in its most malignant and mortal forms. The reduction of mortality at the British West India stations generally, says Dr. Proudfoot, has fallen since 1796, from one-half to one-thirty fifth, in consequence of the hygienic progress either in the construction of barracks, the personal cares, or the draining of marshes.

The endemic pestilence observed at the barracks of St. Elmo, in Malta, should be noticed in this connection. They are built below the sea level and the circulation of the air is prevented by a wall. A large drain, moreover, runs through them, and their drinking water is said to be putrescent. It is not then surprising that every regiment successively stationed there should be decimated; — the 7th Fusilliers, some years ago, lost there from fifty to sixty men a week. This fact and those relating to the British occupation of India cited before, show how far are the rudiments of hygiene from having penetrated the obtuse intelligence of those who control the destinies of armies.

SPHERE OF RADIATION.

Altitude.—In the sentiments and customs of the ancient Egyptians, Persians, Hindoos, Hebrews, and Greeks, hygiene was intimately associated with religious observances. Health was placed under the eyes of divinity, and the first temples of Esculapius, as Plutarch informs us, were constructed upon the heights. Hom, the first apostle of the magian faith, and who is reverenced as distributor of the waters and instructor of animals, who taught men to respect in themselves the Feroners, spiritual principles, divine ideals, and prototypes of character, is thus addressed by Zoroaster: "You are the first, oh great Hom, to whom Ormusd has given the evangum and the saddere (useful and symbolic garments), with the pure law of the Mazdeiesnans;—having girded the evangum on high ranges of mountains, you announced the word upon the mountains." So Byron: "Not vainly did the early Persians make their altars the high places and the peaks of earth, overgazing mountains, and thus take a fit and unwalled temple, there to seek the spirit in whose honor shrines are weak, upreared by human hands."

The same principle is observed by Huc to have presided over the location of the Bonze temples in China, originally dedicated to the worship of Buddha, the oriental Christianity, which contended with Brahminic pharisaism. And Livy considers the installation of "the seven-hilled city" as a divine inspiration; not without cause, he saith, have these most healthful hills been chosen by the gods and men for the foundation of our city.* In the most fever-breeding districts of Italy, certain points of altitude between 400 and 800 metres completely escape the marsh influence, says Boudin; and it is on the principle of salubrity proportional to altitude, that the great establishments for convalescence in British India† have been based. The questions of acclimation for the northern races in warmer climates, and the progressive redemption of marshy tracts to culture and salubrity, must depend in a great measure upon the first colonists or industrial corps availing themselves of these citadels alike against military and miasmatic invasion. Boudin and Michel Lévy agree in regarding the occupation of elevated points as indispensable to the success of the French colonization of Algeria.

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* And Virtruvius concludes thus his remarks on the situation of Rome: It a divina mens civitatem populi Romani egregia, temperataque regione collocavit, uti orbis terrarum imperio potiretur.

† See "Statistique de l'etat Sanitaire, etc., des Armées," p. 50 to 54. Paris, 1846.

Bombay possesses a depot of convalescents at Mahalibar, 17° 56′ of north latitude, and 4,500 feet above the ocean level; Sumla at 7,000 feet, Bareilly at 4,456, and Almora at 5,400 are the principal health stations in Bengal. Delhi has its sanatorium at Landar, 7,900 feet, where the annual temperature oscillates between 8° and 20° of the centigrade thermometer; then in descending a chain of ports at Massura, 7,129 feet; at Giri Pani, 6,100 feet; at Raypour, 3,200 feet above sea level.

In Madras, 11° north of the equator, the Neilgherry mountains rise in amphitheatre up to 2,000 and 8,000 feet above the sea level, and possess a delicious climate, the average temperature of which is 13°, 70′, the maximum 22°, 78′, and the minimum 0,56 c.

The encampments distributed along the ascent from Bellary, near the sea level, to the highest point of occupation, have given a regular decrease in mortality proportional to the elevation: from 94 down to 20 deaths in the same period among 1,000 men. Local peculiarities, the direction of winds, &c., complicate this question. Sierra Leone, 400 feet, or even 1,360 feet at Stony Hill, Jamaica; or 1,670 at Candy, Ceylon, have exhibited a high mortality, and show the necessity of not resting at slight elevations, which are often less wholesome than the swamp or sea levels. M. Bossi, prefect of the department of the Ain, has classed its mortality according to 4 degrees of elevation from the swamp level, at 1 death in 20,8 inhabitants to mountain sites, 1 death in 38, 3.

The different quarters of London, examined in terraces of 20 feet, each progressively higher from the Thames, gave in the bills of mortality from cholera in 1849 for 10,000 inhabitants:

Up to 20	feet, deaths,	102.
20 to 40	" "	65.
40 to 60	" "	34.
60 to 80	" "	27.
80 to 100	feet, deaths,	22.
100 to 120	" "	17.
340 to 360	" "	6.

In Mexico, 924 metres is the limit by altitude for the yellow fever, according to M. de Humboldt's observations. In Egypt, the plague raging at Cairo respects the citadel completely; Desgenettes mentions this fact in his report to Napoleon of the year IX., and M. Clot Bey confirmed it in 1835.

Even the diseases peculiar to mountain countries have their limits of elevation; for cretinism in Switzerland, 3,000 feet, in Piedmont 6,000 feet, in South America 14,000 feet. The Matlazahautl of the Mexican natives was observed by Humboldt only between the heights of 1200 and 1300 toises; and the Verugas, endemic to the west side of the Andes of Peru, only between the heights of 2,000 and 5,000 feet above sea level.

WATERS: INFLUENCE OF THEIR QUALITY ON DISEASE.

It is in the highest degree probable that the malarious poison can penetrate the system through the stomach by the waters charged with it. Hippocrates remarked, that people who drank marshy waters always had enlarged and hard spleens. Galen said: "Potest tamen efficere morbum universalem haustus aquæ infectæ." Rhazes held, that stagnant and putrid waters enlarge the spleen, spoil the complexion, and engender fevers.

During the summer and autumn of 1781, several maladies, especially obstinate fevers, prevailed at Paris, and were attributed by Antoine de Jussien to the alteration of the waters of the Seine and Marne, in consequence of a long drought. He found them like the waters of lakes and marshes, surcharged with the qualities of the plants that rot in them. The hippuris and conferva, which had filled the little ponds along their banks, and afterwards decayed for lack of water, were regarded by him as chief causes of the infection.

Rochard, ex physician of the King at Pondicherry, relates, that in 1778 the frigate *Consolante* stopped eight days at San Jago, off the Cape Verds, where yellow fever had prevailed, and there took in a stock of saumatic water; a few days after leaving there the fever raged on board, seizing two-thirds of the whole crew, of whom 150 died. But no one who sat at the captain's table, and who still used the water brought from Europe in jars, was affected. Of course, their diet and general hygienic condition were superior to those of the crew and soldiers.

Boudin witnesses to the following: In the month of July, 1834, in splendid weather, 800 soldiers, all in good health, were embarked at Bone upon three ships for their return to France. Of 120 men consigned to the Sardinian ship *Argo*, 13 succumbed during the short passage to pernicious fevers; and of the 107 survivors, 98 were put ashore at Marseilles, presenting all the shades, degrees, and types of the most varied of paludal fevers. The two other ships arrived on the same day without one sick. Among the patients from the *Argo*, 4 died of malignant fevers,—the rest recovered under the use of large doses of Quinine. A medical inquest, prescribed by military authority, and in which I took an active part, showed, that on leaving the port of Bone in a hurried moment, several tons of water drawn from a marshy spot had been placed on board the *Argo* for the use of the soldiers, who all complained of the repulsive taste and nauseous smell of the water. The ship's crew, who continued using a special provision of pure water apart from the soldiers, had not a single man sick.

Mr. Grainger, in his report on the cholera of 1848 and '49, mentions a fever of so severe a type, that seven or eight of the soldiers stationed at Versailles in 1845 died of it in one day. It was ascertained, that those only of the troops were attacked who had drunk of the marsh water, the surface drainage of the soil around which had been provided during the reparation of the tank. English people at a hotel, who drank this water, were also seized with ague; the town people, who refused to drink this water, had no fever.

I have repeatedly observed the prevalence of diarrhœas and dysenteries in the late summer and early fall among those who drank the putrescent waters of the Croton in New-York; or in the country the spring water, which had been collected for convenience in a small reservoir on the top of a hotel, where it stagnated.

The use of putrid water is probably influential on the mortality by plague on its classic ground. "For six months in the year," says Volney. "the water of the Nile—the only water used in Lower Egypt—is so thick, that it must have time to settle before it is potable, and during the three months preceding the inundation," (which is that in which the plague rages) the Nile is shallow,—its waters become heated, green, fetid, and full of worms.

It has been established,* that all ferments, even that of bread, have a pernicious action on many feeble organisms. Certainly the Egyptians cannot with impunity fill their blood with this poison in a form the most disgusting. Attention to the purity of water will ever be an unerring sign, as well as condition of hygienic and social progress.

Mr. Wm. Blower, surgeon of Bedford, cited by Dr. Snow and Dr. Watson, states that typhus and ague, which had long infested the village of Wooten, near Bedford, had been much diminished by digging a few wells and obtaining good water; while in the neighboring parish of Houghton almost the only family which escaped ague at one time, was that of a respectable farmer, who used well water, while all the others used ditch water only.

Water is preserved both on ship-board and on land. Many localities, especially of forts, have no other water than that of the rains, collected in cisterns,—the purest of natural waters, since it contains scarcely any other matters than traces of azotic-acid, of azotate of ammonia, of iodine. and the different mineral elements drawn by evaporation from the ocean. The prejudice which attaches to cistern waters can be defended only by the inconveniences inherent to the construction of these reservoirs; better built and of materials appropriate to their destination, they would afford a precious resource, not only in the conditions peculiar to some country places or towns, but to the crowded populations, who now drink the imperfectly purified river waters. They would dispense more than one municipal corporation from bringing at great cost, by subterranean conducts or by aqueducts from different sources, waters of a variable composition.

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* See on this subject an article by Dr. Hunt in No. XXVII. of the NORTH AMERICAN JOURNAL OF HOMŒOPATHY.

M. Garna, the venerable professor of Val de Grace, desires with reason, that all public establishments—hospitals, barracks, libraries, museums—should have their cisterns for security in case of fire, as well as for the wants of their inhabitants. He has shown what advantages Paris would derive from the multiplication of private cisterns, and deplores that new buildings should ever be constructed without them. His experience recommends the following precaution,—viz.: that they be dug in a shady spot, and three metres.

To have pure water everywhere, it is necessary to collect the rains and filter them into cisterns. The roof, if not tiled, should be plated with zinc. M. Auzoux has ascertained the innocuity of waters collected in zinc reservoirs, such as are drunk by the inhabitants of the fertile plains of Neufbourg (Eure), who for fifteen years past have used zinc reservoirs as cisterns, and keep their water pure, limpid, and pleasant.

The bottoms of cisterns should be bedded with charcoal dust. Their depth should never be less than three metres for two cubic metres of dimension; their sides perfectly rounded and polished, 70 centimetres in thickness, on a bed of clay or other incompressible bottom,—millstone p. membiere, and hydraulic lime or betou. Through the wall of one side is cut a drain of 10 or 12 centimetres, for the infiltration of the excess of water into the surrounding earths, if the nature of the locality permit. The vault, which has the thickness of an ordinary wall, is interrupted on one side by a square throat of about thirty centimetres in height, terminating on a level with the soil, internally coated with a layer of Roman cement, and closed by the aid of a trap in strong oak. By this aperture the workman descends into the cistern when it is to be repaired or cleansed. Its cleansing is easily effected every four or five years by the aid of a kind of long-handled drag. At one of the angles of this trap an opening is made for the passage of a hand-pump tube. Tubes of baked earthernware, or of fonte, placed in an excavation, conduct the rain from the gutters to inside the throat. The trap, hermetically closed, ought to remain in place during two or three months, after which water is allowed to flow into the cistern. It contracts at first a taste of lime, but this soon ceases. The cost of a cistern thus constructed, of 1 m, 50 cubic, is estimated at 500 or 600 francs. No other than slate or zinc roofs should be used for collecting cistern water; and in order to prevent dirt from washing in along with the rain, this water should traverse a thick bed of sand, as in the great cistern of the ducal palace of Venice. In reservoirs less than 3½ metres in depth, the water tends to be heated,—aquatic plants aad insects multiply. The varieties of coal used as fuel should be examined.

Mr. Kuhlmann has found sulphate of copper in cistern water, drawn from the roofs of a factory whose furnace chimneys were surmounted with copper tubes. The coal employed containing bi-sulphuret of iron. and the oxygen present when the fires are lighted, not sufficing to convert the sulphur as it is given off into sulphuric-acid, part of it is vitalized with a little sulphuretted hydrogen; the copper of the chimney fixes them in their passage, and the sulphuret of copper resulting is changed into sulphate with the aid of atmospheric oxygen. This sulphate of copper is carried out by the current of air from the tube, and falls upon the roof. Animal black in grains purifies the water of cisterns, and frees it of calcareous salts. Mr. Girardin prescribes it in the proportion of 4 kilogrammes to the hectolitre of water in a new cistern.

Cisterns should be surrounded with a bed of sand, sustained by a dike of clay, as used by the Venetians, to avert infiltrations from without. Conducting pipes should never be of wood, nor of lead; but of fonte, or thick glass covered with pottery, such as is now made for the purpose at Lyons.

The rotting of hemp in still waters, and the spontaneous decomposition of the indigo plant in the preparation of that dye-stuff are asserted to give rise to miasmatic fevers. Water, remarks Professor Wood, appears to have the property of dissolving and retaining miasmata, whether in a proper liquid state, or in that semi-liquid form in which it constitutes fogs and mists. Heavy rains, floods, and deep water dissolve the miasm, as it is generated, and prevent its escape; evaporated to a certain point, they re-infect the atmosphere. Possibly the first rains in tropical latitudes, to which malignant properties are ascribed, really dissolve and bring down miasmata which had been floating in the upper strata of the burning air. If salt marshes are not malarious, or less malarious than fresh, this is to be ascribed not merely to the antiseptic virtues of salt, but to the tides which wash away dissolved malaria. The action of the tides is diminished where salt and fresh waters mingle, at the same time that the steady downward current of the river is wanting. The greater exemption from malarial influence attributed to equal distances over water than over land may be due to the solvent power of the water; and the specific gravity imputed to miasmata may be no other than that of the low-lying mists which they had saturated, and which in the cooler hours of the day and night bring them within the sphere of our respiration. Waters known to be malarious are observed to be more noxious, where they are tossed as foam and spray into the air, than where they flow calmly within their banks. Here the question of malarial poison is complicated with that of the influence of humidity and vaporization which are known factors of no mean importance in predisposing to fevers.

Mr. Craig, examining from the electrical point of view the influence of water, remarks, that in proportion to its depth, it is a better conductor and a worse radiator of heat; hence evaporation is comparatively slight from deep waters, and the electrical state of their surface will change less in alternations of day and night. Evaporation and the consequent variations in electric tension will be at maximum in shallow milldams, with banks of gentle slope, the largest surface of which is daily exposed to the sun. Those of Glamorganshire are cited as remarkably unhealthy, in connection with the presence of iron in the minerals of that district, which Mr. Craig supposes, may contribute to draw away the electricity of the surface, or diminish the electric tension necessary to health.

In a medical point of view, it is necessary to consider as marshy all waters more or less stagnant, filtered through to the sides of hills, or spread beneath the superficial stratum.

ARTICLE XXIII.—*Pathology a Practical Science.* By R. LUDLAM, M.D., of Chicago, Ill.

IN illustration of my theme, "*Pathology a Practical Science,*" I propose to review the history and medical treatment of inflammation occurring in the serous membranes.

An acquaintance with the histology and the physiology of these tissues is essential to a complete understanding of our subject. Serous membranes are composed of two layers which differ in structure and function. The first, supplying their thickness and elasticity, is formed of a condensed areolar tissue with an admixture of the yellow fibrous element. The function of this coat is to preside over the nutrition and innervation of the serous structures. The second layer covers the surface of the membrane proper with epithelium—a continuous expansion of cells. These squamous epithelial cells are nucleated, and present, in the field of the microscope, a flattened appearance with a polygonal outline. Sometimes they are matched into the species of hexagonal mosaic, styled pavement, or tessellated epithelium.

We should make the acquaintance of these cells for reasons which follow. Each of them is a composite structure, a proper organ or gland, and, as such, has its specific function to perform, its small, but by no means insignificant contribution, to the great fund of life-actions and phenomena. In its sphere, each is as important as the blood-globule, or the little vesicle of gray neurine which takes the "negative" of all that we learn!

Micographers and physiologists have labored to establiish a wide distinction between the epithelium lining the minute ducts of the larger glands, and that which is found upon the free surfaces of serous membranes. We are told that the cells of the former are the true secerning organs, and that they should properly be classed as "glandular," while those of the latter constitute a subsidiary structure, a species of intervening membrane, designed to prevent the mechanical friction of surfaces which are in contact. The structure of epithelial tissue is studied as a matter of curiosity, its function recorded as subordinate, while most writers upon anatomy and physiology record all that they consider worth knowing of either upon half a page of their learned works. Half a volume is esteemed too small to contain the information necessary to even a superficial understanding of the disorders of the arachnoid membrane, the pleura, the pericardium, the peritoneum, the *tunica vaginalis testes*, the synovial capsules, and the *bursæ mucosæ*.

Here is a strange oversight and an unwarrantable inconsistency. We are ready to admit that the pathology of the alimentary mucous membrane cannot be understood, nor its lessons made available to the medical practitioner, except through observation and reflection he has first become familiar with the physiological minutiæ of digestion. He must know somewhat of the buccal mucous membrane, and of the products of its surface and glandular cells—the saliva. He must have heard of the modifications in cell-form and function through the gastro-intestinal tract, resulting in the elaboration of the gastric juice, the pepsin, the *succus entericus*. He must be able, if need be, to adapt his prescription, in case of disease, in conformity with the light and teachings of practical physiology. To find the salivary fluid acid in reaction, is to discover the key to a physiological disability in the digestive process. An alkalinity of the gastric juice will prevent the solution of albuminous matters contained in that viscus.

The absolute necessity of this knowledge, to one who desires to practice medicine intelligently, is acknowledged by the better educated minds in our school of therapeutics. And we apprehend the day is not far distant when we shall derive equally important lessons from a more intimate and thorough knowledge of the sciences of physiology and pathology, as they relate to the "medical history" of serous membranes.

Each of the epithelial cells covering the free surfaces of serous membranes, is an organ of secretion. Like the larger glands, it elaborates from the circulating current its own peculiar product,—a secretion which is of great service in subsequent and final physiological processes. According to its volume and particular contents, it secerns from the blood an indispensible fluid, one which is necessary to the health of serous membranes. Like other active organic cells, each is composed of a cell-wall, a nucleus, and organizable contents. They may vary in size and shape, for example, they are reported smaller and more regular in their arrangement upon the surface of the pericardium than elsewhere. They derive their secretion from the colorless blood, the *liquor sanguinis*, which circulates through healthy serous membrane.

In addition to their simple biological interest, each of these microscopical organs is physiologically important, since it is the recipient and dispenser of at least three forces which are vitally important to its individual integrity and usefulness. These forces are: 1. *Nutritive;* 2. *Formative:* 3. *Secretory.* It is with these, therefore, as agents of health or of disease to serous membranes, that we, as physicians, are particularly concerned. Normality of structure and function in these membranes insures, while abnormality in either or all of the forces, endangers the physiological integrity of each epithelial unit.

The *nutritive* force presides over and regulates what De Blainville styles "the twofold, internal movement of composition and decomposition." It superintends and determines the assimilation of organizable elements. In regard both of quantity and quality it selects from the pabulum furnished, the proper materials for the growth and repair of the epithelial tissues. It is the building and constructing agency of these little organisms. In the healthy state it serves to maintain a proper equilibrium between waste and repair. If an excess of the histogenetic elements were furnished, it would not prejudice the health of the structure, for the regulating agency of this force is designed to prevent a too active nutrition. But this force may become excessive or deficient, in either case, the supply of organizable material being normal, the tissue development must of necessity correspond. Hence hypertrophy, or a super-nutrition of structure. The excess of development in a hypertrophied structure is physiological, however, and not necessarily pathological. The growth is in conformity with the type of the tissue,—homologous or homœoplastic,—similar to that of the original part. Hence, also, atrophy, the the opposite of hypertrophy,—a deficiency of repair, an excess of drain, a want of balance between growth and waste.

These rules apply as well to the assimilative development of the epithelium as to that of any other among the bodily tissues,—equally with the serous as with the mucous. The nutrition of the latter is physiologically similar. Both are subject to hypertrophy, or atrophy in proportion as their resident nutritive force is too active or too feeble, or the supply of organizable material is too copious or too scanty.

The *formative*, or modelling force of the cell is the architect of its reproduction in the epithelial tissues. In health it guarantees a legitimate development and construction of these little organs. Its office is to prevent the introduction of heterologous forms among those which are genuine and proper to the structure. It determines the production of pavement or tessellated, and not of the ciliated or columnar epithelium, on the free surfaces of serous membranes. It secures the integrity of physiological repair to the worn-out tissues. It substitutes for post-organic forms and elements yet other structures, which, in their growth, shall conform to the peculiar organic type of the tissue.

Now any departure from the healthy conception and development of these composite structures, in accordance with a type, which, among organic cells, is as fixed and invariable as it is among the animal species, results in the pathological substitution of a new texture for the natural one. The heterologous form is endowed with a function which is unnatural or abnormal to the part in which this histogenetic substitution has taken place. Hence a functional lesion may result indirectly from a disordered play of the formative force, which has been entrusted with the task of moulding new tissues after the old types, and of re-building a series of structures which are both natural and necessary to the physiological welfare of the part. We shall presently make a practical application of these facts and deductions.

The specific *secretory* force supplied to the epithelial glands of which we have spoken, causes them to eliminate the serous fluid which is their peculiar product. It enables them to secrete this fluid, analagous in chemical composition to the serum of the blood, a fruit which is as specific and necessary as is the gastric juice of the gastric glands, or the pancreatic fluid of those of the pancreas. In health the free surfaces of serous membranes are always moist, a condition due to the proper function of these glands. The secretion itself plays a part which, in its own sphere, is no less important than is that of the saliva, the bile, or the *succus entericus.*

An unanswerable argument in support of the glandular character of these serous cells is found in the fact that, under a normal force they secrete but just sufficient to fulfil the physiological indications present. Mere mechanical exhalation, infiltration, exosmose, would be subject to caprices of physical condition in the liquor sanguinis, or the septa, or both, and an excess of effused fluid beyond the capacity of the absorbents to remove it,—otherwise a dropsy, would much more frequently result.

Another plea for their more exalted rank among the functions is furnished by the varying character of the product supplied by the different serous membranes. Some slight modification of the cell form, or force, or both, inappreciable to the senses, changes the chemical character of the serous fluid in the different cavities.

Like the better-known and more complex glands, these cells are liable to both functional and organic disorder. This increases the consequence of a careful study of their physiological and pathological peculiarities. No medical man thinks of ignoring the importance of the anatomy and history of the liver—the largest gland in the body. Its very size suffices to call attention to it. But the microscopical insignificance of the epithelial organs, especially of those located upon serous membranes, is pleaded as an excuse for overlooking them altogether. As if it were not true that each little acinus of the liver is composed of an aggregation of cells,—a community, each individual member of which, invisible to the naked eye, is nevertheless a *bona fide* liver of itself. Morel says, and very truthfully: "Heretofore the study of cells and epithelial membranes has been too much neglected, and yet there are, in truth, no histological elements of more importance—from whatever point of view they may be regarded." (*Compendium of Human Histology*, pp. 15—16.)

The special pathology of serous membranes demands the most careful study. Their more frequent lesions, functional and organic, idiopathic or symptomatic, are those which result from inflammation. The history of each of the phlegmasiæ is interesting, but that of inflammation of serous membranes is especially so.

The *first* stage of this process in this class of tissue is one of hyperæmia, congestion, or engorgement. It is characterized by an unnatural redness or discoloration of the part involved, which change is due to the circulation of the colored corpuscles of the blood through vessels which, in health, transmit only a pale but nourishing fluid—the liquor sanguinis. The calibre of the capillaries is so increased, dilated, as to permit the ingress and transit of the semi-solid portions of the blood, which before were excluded on account of their relative size. New microscopical conduits are created in great numbers, so as to increase the vascularity of the membrane, and a local hyperæmia, active or passive, is the result.

We have an illustration of the stage of engorgement occurring in a tissue where the process is in a measure visible to the naked eye—in the conjunctiva. This is a mucous, and not a serous structure, but in the first stage of conjunctivitis the phenomena presented are essentially the same as those which characterize the inflamed serous membranes. In their healthy state, the vessels of the conjunctiva do not carry red blood, but once an inflammation is initiated in them, the signs characteristic of hyperæmia are manifest, and its surface becomes changed in color, as well as in sensibility, heat, &c. The general features of congestion, as marking the onset of the phlegmasiæ, are so familiar that we need not recapitulate them. Upon their especial significance, however, as modifying the symptoms and results of that process in serous textures, we may be permitted to enlarge somewhat.

I. Whether it be true or not that the nutritive force is supplied to the separate tissues by the blood, is a physiological question which we need not consider in this connection. It is certainly true, however, that a disordered circulation is apt to be followed by a disordered nutrition. This fact is too familiar to demand illustration, and is equally true of the serous as of all other animal structures. In case of engorgement, the proper assimilative processes are endangered. If the nutritive force is equal to the emergency, and capable of appropriating all the organizable material furnished, hypertrophy will result. If not, derangements follow which hazard the healthy anatomy of the part through a depraved nutrition. Ulceration, sloughing, and gangrene result less frequently in these than in most other tissues.

II. A derangement of the formative force resident in the sero-glandular cells, in consequence of advancing inflammation, causes the plastic deposit which forms adhesions between the free surfaces of serous membranes. These heterologous formations furnish us with a most interesting subject of study.

1. Because they serve to illustrate the fact that organizable fluids are incapable *per se* of organization.

2. They teach us that the elective and assimilative affinity which governs this process in the different tissues, resides in their component cells, and not alone in the blood which is supplied to them.

3. That heteroplastic, as well as homœoplastic growths, result from the impression of a resident type-force upon organizable plasma. In case of the former, however, the modelling power is depraved, and hence the resulting tissue is pathological.

4. That false membrane, the product of inflammation in serous tissues, can never discharge the function of the normal epithelial glands appropriate to that tissue.

III. A third result to be apprehended from a morbid condition of the circulation in the sub-serous structure is a derangement of the secretory function of its glandular surfaces. If the blood is supplied in excess, it works mischief by surcharging these same epithelial cells. Being overtasked, the proper performance of their function is rendered impossible. Nor is the mere excess of the local circulation the only adverse influence to contend with. In every well-marked congestion of the sub-serous connective tissue there is a *stasis* of red blood in the vessels, which greatly embarasses the secretory processes of the glands which cover it.

Let us illustrate the consequences of an undue determination of blood to a secretory surface. The gastric glands yield the gastric juice only under stimulus of the presence of food in the stomach. While fasting, its mucous membrane is of a delicate pink color. When food is swallowed, the bolus serves to increase the activity of circulation in the part with which it comes in contact, and its complexion is altogether changed. Now it has become reddened, and in a measure, yet within physiological bounds, congested. Secretion is rendered active, and the solvent is thrown out in order to accomplish its work. When the chymifying process has been initiated and progressed as far as necessary, the redness of the mucous membrane passes away, and the functional activity of its important glands, for the time being, subsides.

If, however, the irritant be too frequently or too continuously applied, as when food is taken at brief intervals, regardless of regularity of meals, and with every temptation of the appetite, the congestion becomes a certain and permanent source of glandular disability. From each mouthful eaten there results a reciprocating afflux of blood to the gastric mucous membrane, and this constant increase of the local circulation is certain to be followed by disastrous consequences to gastric digestion. What was physiological has become pathological. What, within proper limits, was the great source of, and condition upon which a necessary product was secreted, has now become the source and condition of digestive disability.

So with the secerning office of the epithelial cells located upon serous membranes. Furnished in proper amount and quality, the blood is absolutely essential to their functional activity and integrity. But once the vessels have become abnormally and permanently distended, the blood stagnating in them, we shall as certainly have a disordered secretion, as in the case of the gastric mucous membrane laboring under a similar embarassment.

The *second* stage of the "serous inflammation" is that of effusion or exudation. The congested capillaries are relieved of their distention by means of the exudation of a portion of their contents. This stage is a critical one, and, whatever the ultimate consequences, is marked by a relief from the acute suffering experienced in the first, or congestive period.

The effused fluid consists of serum or lymph, which is always organizable, but the organization of which depends upon the peculiar impression of the plastic tissue forces proper to the part upon which it is thrown out. The degree of nutritive and formative disorder in the epithelial tissue, consequent upon the engorgement of its sub-serous layer, will modify the resultant histogenetic processes. The congestion consisted essentially in a loss of balance between supply and demand. A blow was aimed thereby at the organization of the parts, and their normal anatomy threatened by an excessive, irregular, and languid supply, and final stagnation of the plasma furnished. If the process were not necessarily a morbid one, and the nutritive force was adequate to the emergency, the effused lymph would be modified and moulded into structure which we call hypertrophied. But inflammation is a pathological, and not a physiological process. The type force, and the nutritive force resident in the cells, and acting upon the organizable plasma which has exuded from the serous capillaries, produce the heteroplastic, or false membrane, as in pleurisy and pericarditis, in lieu of healthy epithelial structures.

The phrase "adhesive inflammation" implies that the fluid effused in its second stage, undergoes such an organizing process as to glue the opposing surfaces of serous membranes together. The heteroplastic formation which is located upon them, differs from the diphtheritic false membrane in presenting two surfaces which are adhesive. The latter are never adherent excepting upon one side.

When, however, the resident forces do not so impress the plasma which has been exuded as to result in the formation, either of natural or of false membrane, we shall discover other products which result indirectly from the inflammation, and which evidence an entire abortion of the healthy morphological processes peculiar to serous tissues. These are the pouring out of dropsical fluids, and of blood, the production of pus, and of calcareous and tubercular deposits; either of which is liable to result as a sequel to the second stage of arachnitis, pericarditis, pleuritis, synovitis or peritonitis.

TREATMENT.—In the light of these views we may divide the therapeutics of this variety of inflammation into general and special, or that common to the congestive stage, and such as is applicable to the second and later periods of the inflammatory process in the individual members of this class of tissues.

I. *Of the general treatment proper for the stage of congestion, or engorgement, in all the serous membranes.*

Bennett, as an eye-witness, testifies that the order of changes which take place in the capillary vessels, and in the blood contained in them, as the process of engorgement commences and finally ends in that of exudation, is as follows: "*First.* The capillary vessels are narrowed, and the blood flows through them with greater velocity. *Second.* The same vessels become enlarged, and the current of blood is slower, although even. *Third.* The flow of blood becomes irregular. *Fourth.* All motion of the blood ceases, and the vessel appears fully distended. *Fifth, and lastly.* The liquor sanguinis is exuded through the walls of the vessel; and sometimes there is extravasation of blood corpuscles, owing to the rupture of the capillaries."

The results of accurate observation and measurement on the web of a frog's foot were, that "immediately after hot water was applied, a vessel that measured 13 spaces of the eye-micrometer, contracted to 10; another that measured 10 contracted to 7; a third, that measured 7, contracted to 5; a fourth, which was a capillary carrying blood globules in single file, and measured 5, was contracted to 4; and another of the smallest size, which measured 4, was contracted to 3. With regard to the ultimate capillaries, it was frequently observed, that if filled with corpuscles, they contracted little; but if empty, the contraction took place from 4 to 2, so that no more corpuscles entered them, and they appeared obliterated. * * * * * It was also observed, that minute vessels that contracted from 4 to 3, afterwards became dilated to 6 before congestion or stagnation occurred. The smaller veins were seen to contract as much as the arteries of the same size."

It is certainly a practical undertaking to determine by what means these changes are effected. What is the instrument or instruments which produce these departures from a healthy action in the capillary circulation? The nerves of the circulatory channels—the arteries, capillaries, and veins—preside over their functions as they do over that of the larger bodily organs. Wrisberg, Béclard, Harrison, Hart, T. Rymer Jones, and others have demonstrated them to be very numerous, forming plexuses or retinæ around the vessels. The nerves of the organic or sympathetic system are believed to regulate the flow of blood through the channels, large or small, in an indirect manner, through their connection, by filaments with the cerebro-spinal apparatus.

CARPENTER ("Human Physiology," p. 260–1) says: "Valentin and others have succeeded in producing evident contractions in the aorta by irritation of the sympathetic nerve, and of the roots of the cervical nerves of the spinal system. * * * * * * The minute subdivisions of the sympathetic nerves upon the walls of the arteries, the known power which this has of producing contractions in their fibrous coat, and the influence of mental states upon their dimensions (as shown in the phenomena of blushing and erection) render it highly probable that the calibre of the arteries is regulated in no inconsiderable degree through its intervention."

DUNGLINSON ("Human Physiology," Vol. I., p. 419) thinks, "The contractile power of the capillaries is doubtless modified by the condition of the nerves distributed to them, which, as we have seen, are observed to increase as the size of the vessels and the thickness of their coats diminish."

GRAY ("Anatomy," p. 360) tells us that "Arteries are also provided with nerves; they are derived chiefly from the sympathetic, but partly from the cerebro-spinal system."

Granted, therefore, that certain characteristic changes occur in the capillaries in the first stage of the inflammatory process, and that the nerves, animal and organic, are the instruments whose deranged action is accountable therefor, is not the therapeutical indication most plainly presented? Not to go back of the nerves, is it not manifest that the exciting cause of the lesion of function and structure in the blood-vessels must have operated through these same channels; and that, if we would remedy the disorder, we should accept the hint and act upon it?

The more prominent among the medicinal agents which affect the circulation through the nerves are Aconite, Belladonna, Gelseminum, and Opium. This they accomplish either directly or indirectly. Indeed, since their sphere of action under the present indication is confined to the nervous system of the circulatory channels, we may more properly class them as either *centric* or *concentric* in their mode of operation.

The most accurate and best authenticated cases of poisoning by Aconite establish the fact, that it affects especially the capillaries, and this through a direct impression upon the retinæ of ganglionic and vasa-motor nerves supplied to them. This power to influence the whole or any portion of the capillary system renders it a polychrest *par excellence.* Its field of operation is the ganglionic nervous system, which it affects primarily. This primary impression is communicated to the vasa-motor filaments, which regulate the circulation in all the vessels. The changes which occur in the circulation of a tissue brought under its influence, are believed to be very similar to those indicated by Dr. Bennett as peculiar to the congestive process.* The Aconite force, acting directly upon the capillary nerves, stimulates them to produce contraction in the muscular coat of the stomach. From this there results an increased velocity in the flow of blood. The pulse is accelerated. Derangement in this respect causes a derangement in the supply of the life-giving current to the nervous filaments themselves. Hence the species of local anæsthesia, tingling, &c. The causes act and re-act. The consequence of the contraction—*id est*, the accelerated current—modifies the circulation in the nervous plexus, and insensibility with dilatation of the vessel and sluggishness of flow are the inevitable result. The capillaries may become so paralyzed as not to respond to the stimulus of the blood, whence there would result a *stasis* corresponding with Bennett's fourth stage.

Aconite is concentric in its action. Its effects upon the cerebro-spinal centre are secondary. It is therefore appropriate to the relief of congestions, which depend upon an original irritation of the nerves supplying the vessels in their capillary ramifications. The irritant, if traumatic, or the morbific influence, whatever it may be, must have been brought to bear upon the peripheral nerves, which qualify and regulate the function of the capillary circulation. This is the line of operation of Aconite, and this explains its almost universal efficacy in relieving those idiopathic congestions which are located remotely from the great nerve centres.

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* Dr. Prevost (Memoires de la Soc. de Phys. et d'Hist. Nat. de Genève, t. vi., p. 1) found, that if Aconite, much diluted by water, was brought in contact with the web of a frog's foot, contraction and afterwards dilatation of the capillary vessels ensued.

The congestive stage of inflammation in serous membranes commences most frequently with chilliness, followed by a hot, dry skin, thirst, &c., and acute suffering, all of which indicate that the local circulation of the tissue is disordered. These symptoms may set in abruptly. The brain is not disturbed at their onset. Directly, however, the morbid process begins; the fact that nerves have not been demonstrated microscopically to exist in serous membranes weighs as nothing. The most exquisite pain proves beyond a doubt their real presence. The patient's perception of it proves also that the brain may be as innocent of originating the congestion as it would be in a case of whitlow.

DR. V. MEYER says: "The sphere of action of Aconite is manifested principally in the ganglionic system, and exercises here its special influence upon the nerves of the capillary vessels, exciting fevers, congestions, and inflammations. * * * * * "We have as yet no irrefragable proofs that this drug can produce anything farther than the *congestive* stage; there are as yet no instances, not even in cases of poisoning, nor in the later and most industrious provings of our Vienna colleagues, in which the introduction of it into the healthy organism has resulted in the appearance of any one of the products peculiar to inflammation,—viz., an *exudation*."

HEMPEL says, emphatically ("Materia Medica," p. 129): "We know from actual experiment that Aconite is endowed with a specific capacity of inducing a spasmodic torpor of the tissue of the terminal capillaries."

On the other hand, Belladonna is centric in its operation. It diminishes the calibre of the blood-vessels after having just impressed the cerebro-spinal centres. The capillary contraction occasioned by its primary action is followed by a relaxation in the fibrous coat of the vessel, which corresponds to

Bennett's second stage. This change from contraction to dilatation is more or less marked in degree, and depends upon a diminution in the reflex power of the spinal cord, which, Brown-Séquard says, Belladonna and the Ergot of rye may occasion. It is due to a disorder in the motor current at its source. The hyperæmia results from a direct derangement in the function of the vasa-motor nerves. In all essential particulars, so far as the local tissue is concerned, the consequences do not differ from those produced by the Aconite. But in their mode of action they are diametrically opposed. And this is the indicator to their proper therapeutical employment in the treatment of congestions.

Aconite is preferable to Belladonna in the congestive stage of most cases of pleurisy and pericarditis, because the engorgement is due to causes acting concentrically. The lesion is idiopathic. The animal nervous centres are not primarily implicated. Delirium, for example, is a rare concomitant of either disease. So also are a flushed face, dilated pupils, nervous headache, and spinal irritation in any form. If such symptoms were to anticipate or accompany a congestion of these membranes, the indication would be changed, and Belladonna, Gelseminum, or Opium might be required.

But these symptoms *are* common to peritonitis and arachnitis—a fact which explains the superior efficacy of the Belladonna in their treatment. Where the primary disorder of the ganglionic nerves along the vessels has reached, and involved the great centres of organic and animal life, and both sets of causes or instruments are ministering to the production of morbid phenomena, Aconite and Belladonna, or Aconite and Gelseminum may be given in alternation with advantage. Or, what was at first concentric, may have become centric in its operation and pathological significance, and we shall have need to substitute Bell. or Gels. for the Aconite.

In treating the first stage of rheumatic inflammation of synovial membranes, this knowledge is of service. When the attack commences abruptly, the local suffering will afford the first sign of pathological change. The general functions are by-and-bye implicated, and febrile and sympathetic phenomena follow. The nerves of the periphery—those supplying the capillaries of this remote serous structure—prove vulnerable to the toxicohæmic poison before it affects the cerebrospinal centres. The *materies morbi*, uric-acid, lithate of soda, or what not, becomes a local irritant, and mischievous consequences follow its direct impression upon the peripheral nerve filaments.

Under these circumstances no agent with which we are acquainted is possessed of such wonderful efficacy as the Aconite. When the symptoms are less acute, the affection more general, erratic, and withal more confined to the fibrous textures, Belladonna, Gelseminum, Bryonia-alba, Rhus-tox., or some other remedy may be indicated. But just here it is that by its concentric appropriateness, the Aconite promotes diaphoresis, relieves the engorged condition of the vessels, and by so doing frequently banishes the suffering. If, however, the congestion of the sac around the larger joint is secondary upon some other disorder, we may find the Aconite to prove of less service. Following affections, which involve the general or special nervous systems—as, for example, typhoid fever, neuralgia, or incipient paralysis of the cerebral or spinal nerves—Rhus-tox., Bry., Bell., or Gels., Puls., or Nux-vomica may promise greater relief, even in the congestive stage. In this case the modifying influence of the previous disease, as well as of causes acting in an opposite direction from those demanding Aconite, would afford the criteria for the proper remedy, whatever that may be.

Aconite is therefore appropriate to those congestions of serous membranes which are due to the operation of causes affecting primarily the minute nerve-tendrils distributed upon their capillaries. Its line of curative action corresponds to that of the dynamical cause of disease in them. It seems to impress the ultimate capillaries in a similar manner, and, for ought we know, to occasion the same train of consequences. It produces a relief of suffering, and sometimes aborts a "serous inflammation" by one of two critical methods:—either by inducing a flow of the cutaneous or urinary secretions, which becomes more or less general and abundant, or by stimulating an excess of effusion, so-called, which is poured into the cavity of the serous sac.

Belladonna reduces the hyperæsthesia of the nervous system upon which the congestion is consequent. It affords relief by a removal of the cause of the abnormal phenomena. It does not promote diaphoresis, is not critical in its results, has no especial relation to the emunctories; but is appropriate to, and exercises a calmative influence over the deranged function of reflex action.

The same is substantially true of the Gelseminum. No one conversant with its sphere of action, as indicated by my friend Hale ("Monograph on Gelseminum," 1862), would hesitate to class it among those agents which impress primarily the cerebro-spinal centres, and secondarily the circulation. It is not likely to supercede Aconite in the treatment of the congestive stage of inflammations any more than is Belladonna. Each has its appropriate sphere of duty, and its own manner of performing it. In the great valley of the Mississippi, where paludal causes modify almost every disease—the intermittent element operating through the great spinal system to impress its peculiarities upon every lesion met with—the Gelseminum appears to be the more frequently indicated of the two. To the reflecting mind the reason is apparent. We cannot afford to dispense with either of them. Because Gels. may be more frequently prescribed with advantage west than east, it by no means follows that, under proper indications, Aconite is not as valuable a remedy here in Michigan as it is in Massachusetts. The explanation of the fact, that in all this north-west our medical brethren do not use Aconite more generally in the congestive stage of the various inflammations, is therefore obvious. The anti-periodic element in the Gels. makes it preferable in a majority of cases. Nor does its use, in conformity with this indication, conflict with what we have already stated, that, as regards the nervous and circulatory systems, it operates *centrically*, like Belladonna; and that, to be productive of the best results, it should be prescribed agreeably to the qualifications already specified.

II. *Treatment of the second or exudative stage of inflammation, occurring in serous membranes.*

Three indications are presented in the therapeutical management of the second stage of "serous inflammations:"

1. To remedy the derangement of the function of secretion.
2. To prevent or remove injurious consequences to the enclosed organs.
3. To promote the absorption of effused fluids.

We cannot so encroach upon your time as to elaborate these propositions, nor is it at present necessary. Our idea is to illustrate the proposition that pathology *is* a practical science, and its fruits of the greatest service to the physician in the treatment of these as well as of all other diseases.

There is no method of explaining the particular affinity of certain remedies for particular serous membranes, except upon the hypothesis that each of them bears an especial relation to the modification of function in different members of this class of tissues. Thus, as a rule, Bryonia is more serviceable in inflammation of the synovial capsules and the pleuræ, than in peritonitis, arachnitis, or pericarditis. It appears appropriate to the relief of many disorders of function in the epithelial structures, whether of the alimentary or the respiratory tracts, or of serous surfaces, and the sphere of its usefulness in this direction is more certainly indicated if the secretory derangement depends upon, or is modified by the rheumatic dyscrasia. Most examples of "serous inflammation" are believed to be more or less rheumatic.

The pathogenesis of Bryonia promises much for its remedial capacity in the stage of exudation, more especially when occurring in the pleuræ and synovial membranes. And experience confirms its value. It may sometimes be given conjointly with Aconite in these affections, where, from the protracted suffering and other acute symptoms, there is reason to conclude that both stages of the inflammatory process are progressing at the same moment,—one patch of surface being engorged, while from another the exudation is already taking place.

Belladonna is more appropriate to the sub-acute symptoms, and even, in some cases, for the later changes peculiar to peritoneal inflammation, than is Bryonia. Mercurius-vivus, Pulsatilla and Ignatia may prove of service when peritonitis occurs as a sequel to lying-in. In pericarditis, after Aconite, we have not succeeded so well with any other remedy as with the Spigelia. In the second stage of arachnitis Helleborus-niger, Zincum-met., and Apis-mellifica are the main reliance. Hamamelis-virg. locally and internally is the most successful remedy for inflammation of the tunica vaginalis testes.

The indications for these remedies arise in part from the peculiarity of secretory function proper to each individual serous sac; in part from the modifying influence of previous disease and its treatment; and in part also because the contained organ shares directly in the suffering. Thus, the most significant Bryonia symptoms in synovitis are, a morbid sensitiveness to touch and motion in the larger joints, consequent upon exposure to atmospheric vicissitudes, and occurring in persons of a rheumatic habit. In pleuritis the same remedy is indicated by the stitching, lancinating character of the pain, which obliges the patient to forego all rapid movement, and frequently to sit upright in his chair or bed, the dry and unsatisfactory cough, dyspnœa, a feeling as if the pulmonary air-cells were closed, or the lungs were compressed by an unyielding body enclosing them. The pleurisy, which is sometimes a sequel to typhoid fever, and that which results from exposure to cold, damp weather, may be best relieved by Rhus-tox.

Belladonna is indicated for the nervous symptoms incident to the puerperal state, the derangement of the lacteal secretion, and the liability to cerebral sequelæ in puerperal peritonitis. Pulsatilla in the same disease, because of its power to modify certain disorders of the uterine system, and to allay the peculiar perturbation of the general organism in which the symptoms of exudative peritonitis so frequently have their source. Spigelia in pericarditis, because of its specific and controlling influence over the function of the epithelium upon the pericardial surfaces, and also for its happy effect upon the cardiac plexus by which it prevents too marked a sympathy of the contained viscus with a lesion of its investing membrane. Nearly all the symptoms of sub-acute and chronic hydrocephalus, for which we prescribe Helleborus, &c., are, and must necessarily be, closely related to those of compression of the brain.

Arsenicum has a particular affinity for chronic lesions of structure and function, in epithelial surfaces. This gives it a wide sphere of curative influence in cutaneous and alimentary disorders. It is equally serviceable in the advanced stage of serous inflammation, with more or less of dropsical effusion.

In conclusion, gentlemen, we must insist that pathology and pathogenesy have an interesting practical relation to each other. The stereoscope affords us two pictures in one. The arrangement of objects and glasses harmonizes all incongruities, and gives us a perspective which is astonishingly accurate. These two sciences furnish the eye-pieces which shall bring out the details of therapeutical indication. They do not impinge upon each other, for as the reformers exercised the most unimpaired confidence in the Bible, when it was attempted to overthrow religion by science, so also do we preach and believe that all science is subordinate to truth.

ARTICLE XXIV.—*Surgery.* 1. *Operation for the Relief of Irreducible Femoral Hernia.* 2. *Extirpation of Fibroid Tumor of the Uterus.* 3. *Tracheotomy in Diphtheria.* 4. *Aphorisms in Gun-shot Wounds.* By WM. TOD HELMUTH, M.D., of St. Louis, Mo.

IRREDUCIBLE FEMORAL HERNIA.

IN surgical literature, there is scarcely a subject that covers so wide, so important and so interesting a field as that of hernia. There are so many varieties of the affection, and so many individuals who suffer from it, so numerous are the operations and apparatus that are recommended for its relief, and its symptoms are so important and yet of such variable character,—at one time indicating rapid dissolution, and at another endured for years, with apparently slight inconvenience, that we cannot but regard it, as every way worthy of careful thought, reading and experiment of both the physician and surgeon.

By the term hernia can be understood, a protrusion of the contents of any cavity of the body;—thus by encephalocele we mean a hernia of the brain, and by pneumocele, a hernia of the thorax; but the term, however, by common consent, is now generally restricted to those protrusions that occur from within the abdominal cavity through natural openings, or such parts as are but comparatively slightly covered by the tissues.

It is interesting to glance for a moment at the many forms of the protrusion, that are embraced by the term *herniæ abdominalis*, we have the following:

ABDOMINAL HERNIA.

I. *In Relation to the Anatomical Site.*

1. *Direct inguinal*,—escaping through the inguinal canal.
2. *Oblique inguinal*, " " " " "
   The difference in these two varieties is indicated by the terms designating them. In the first the gut escapes directly through the rings, and pushes with it the conjoined tendon of the internal oblique and transversalis muscle; in the second, the intestine passing obliquely downwards, takes as a covering a few of the lower fibres of the internal oblique muscle, the fasciculi receiving the name of the cremaster muscle.
3. *Femoral or crural*,—escaping through the crural canal.
4. *Infra-pubian*,—escaping through the opening giving passage to the infra-pubic vessels.
5. *Ischiatic*,—escaping through the sacro-sciatic notch.
6. *Umbilical*,—escaping through the umbilicus.
7. *Epigastric*,—escaping through the linea alba above the umbilicus.
8. *Hypogastric*,—escaping through the linea alba below the umbilicus.
9. *Perinæal*,—escaping through the levater ani muscle.
10. *Diaphragmatic*,—escaping through the diaphragm.

II. *In Relation to the Parts Protruded.*

1. *Enterocele*,—If the intestine alone be displaced.
2. *Epiplocele*,—If the omentum alone be displaced.
3. *Entero-epiplocele*,—if both intestine and omentum protrude.

III. *In Relation to Therapeutical Indications.*

1. *Reducible*, 2. *Irreducible*, 3. *Incarcerated*, 4. *Strangulated*,	The terms explaining themselves.

The first variety may partake of the nature of the two last, thus we may have an inguinal hernia, (direct,) which may be an entero-epiplocele and may be irreducible. The case which I am about to record, was a large crural hernia and was irreducible. Before, however, proceeding in detail, a glance at the anatomy of the parts, together with a short description of what constitutes an *irreducible* hernia may perhaps not be devoid of interest, and at the same time prove a source of refreshment to the memory.

We may remember that on the inner side of the thigh, between the sartorius and pectineus muscle, there is a slight depression known as the fossa ovalis or saphenous opening; this depression has no very well defined internal border, but externally it is bounded by the well-developed edge of the fascia covering the sartorius muscle. The floor of this fossa is formed by the pectineal fascia which covers the pectineus muscle; this aponeurosis at the lower margin of the opening becomes thicker, turns inwards and is joined by the sartorial fascia forming a lunated edge; over this edge, as is well known, the vena saphena major turns and joins the great femoral vein. Superiorly the sartorial fascia is connected with Poupart's ligament, or that reflection of it, known as Gimbernat's ligament; thus forming a lunated edge which receives the name of the ligament of Hey. Now, the femoral vessels come from the abdominal cavity and pass *out* under Poupart's ligament, and consequently under Hey's ligament,—covered with their sheath, formed by the fascia of the iliacus internus *posteriorly*, and the fascia transversalis *anteriorly*. This sheath is loose and is called by some the *crural canal*—while that part of the *canal* found at the junction of the thigh with the abdomen, receives the name of the *femoral* ring. This so termed ring is filled up with loose tissue, which has received the name of the *septum crurales*.

The whole anatomy of crural hernia is really so plain and yet is often so bunglingly described in the books, that students are at loss exactly to understand the relation of the parts connected. If they would but remember, that as the femoral vessels come from the cavity of the abdomen to pass out upon the thigh underneath Poupart's ligament, that a space is left between *them and the pelvis*—which is but slightly guarded by loose tissue (the *septum crurale*), which when the intestine protrudes is necessarily pressed before it; and that an opening in the upper part of the thigh is formed where the superficial space joins the deeper seated veins, and that this is filled also with tissue (the cribriform fascia). Then it will be seen that the gut coming from the cavity of the abdomen along the course of the sheath of the femoral vessels, will protrude on the thigh at the opening where the femoral vein is joined by the saphena major; that being a point but slightly covered with fascia, and that from *within* outward the following would be the coverings of the gut: 1st, of course, the peritoneum; then that septum which covers the ring through which the intestine passes—viz., 2d, the septum crurale. The gut then comes down the crural canal, or in other words, within the sheath of the femoral vessels, until it reaches the fossa ovalis, where it protrudes, of course pushing out the sheath of these vessels, therefore, 3d, we have "the sheath of the femoral vessels." This last coat presses with it the fascia which lies in the fossa ovalis—viz., 4th, the cribriform fascia, which in turn forces outward, 5th, the superficial fascia, and with it comes, 6th, the integument. I hope I have made this explanation intelligible, if not, I believe a careful study of the muscles, ligaments and fascia of the locality in question, and dissections upon the cadaver will be the better method.

There is one other particular in the anatomy of crural hernia which deserves notice, and that is the relation of the gut with the femoral vein, the epigastric artery, the spermatic cord, and occasionally with the obturator artery. In a femoral hernia, the parts stand as follows: on the outside the femoral vein; on the inside the spermatic cord; in front and near the seat of stricture the epigastric, and in some instances the obturator artery, the latter being in about one case in four given off from the epigastric.

The next point of interest is to ascertain what constitutes an irreducible hernia, and we cannot do better than quote the words of Dr. Gross on this subject. He says:* an irreducible hernia is one in which the protruded parts do not admit of replacement. * * * * Sometimes all the structures are united, not only to each other, but to the walls of the sac; but in general certain portions are free, while the remainder are more or less adherent. Occasionally distinct bands are seen extending from one coil of intestine to another, or from a portion of bowel to a portion of omentum, or finally from the prolapsed portion of the hernial sac. In ancient cases the plastic matter often presents itself in the form of cellular tissue, just as it does under corresponding circumstances in the pleura and peritoneum. A hernia may be rendered irreducible by alterations experienced by the protruded structures themselves from interstitial deposits. Sometimes again a hernia originally reducible, may be rendered irreducible by the manner in which the prolapsed parts, especially if consisting of intestine and omentum, are twisted around each other. Or again the orifice may retain its usual dimensions, and yet in consequence of the changes experienced by the contents of the tumor, the hernia may be rendered irreducible."

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* Gross' System of Surgery, Vol. II., p. 669.

On Monday, August 11th, I was requested by my friend, Dr. Temple, to see with him rather a remarkable case of hernia, which that gentleman had endeavored to reduce without success, and which from its size and the symptoms produced thereby, was considered to be rather unique. The patient had been attended by Dr. Temple for several attacks of threatened strangulation, which promptly yielded to the medicine, without, however, any diminution in the size of the tumor, and without relief to the ordinary symptoms, which are always attended upon such protrusions. We found the patient, a female of about forty-five years of age, lying upon her back, with a tumor in the groin the size of an orange. She stated that some years since from violent exercise, a small rupture had made its appearance, which gave her much uneasiness, but which had been for a time returned to the cavity of the abdomen by some physician in the part of the country where she then resided. The gut, however, after a time came down, and some months since, while jumping, she strained the parts to such a degree that an audible crack or snap resulted, she fell, and was obliged to be carried to bed, where she remained, suffering agony for some hours. The more aggravated symptoms after a time disappeared, leaving the tumor as we found it, and which had resisted in its reduction all Dr. Temple's well-directed efforts and experience. At first sight I believed the rupture to be an oblique inguinal hernia, but upon careful manipulation of the parts, agreed with Dr. Temple, that it was a crural hernia of large dimensions. I then applied the taxis, the hips being elevated, the legs flexed upon the thighs, the thighs upon the abdomen, and slightly rotated inward. The following indications were regarded: I knew from the size of the tumor that it pressed above Poupart's ligament, and, therefore, the end was to be attained by first drawing it downward to the saphenous opening, at that point to press it backwards into the crural canal, and then upward along the sheath of the femoral vessels toward the abdominal cavity. For over an hour the taxis was perseveringly tried, but with no result, and we agreed to meet the next morning, and for the better relaxation of the parts, to place the patient fully under anæsthetic influence. This we accordingly did, and after an hour and a half were obliged to desist, coming to the conclusion that the hernia was perfectly irreducible.

The patient's health was miserable, and though no actual strangulation had occurred, I proposed to Dr. Temple, that perhaps she might be relieved by an operation; to this he kindly and readily consented, and appointed a day for its performance.

I am well aware that the endeavor to relieve irreducible herniæ, which are not strangulated, by operative procedure, is regarded as entirely unjustifiable by many surgeons of the present day, but I believe that there may be exceptions to the rule, and if there are any, certainly the case in point is one. At three different times symptoms of strangulation had threatened, the tumor was so large, that movement was attended with pain, the constitution was becoming seriously affected by the continuance of the gastric symptoms consequent upon so large a protrusion, and therefore, why wait until the aggravated symptoms of strangulation or ulceration had occurred?

On the 19th of August, in the presence of Dr. Lungray and others,—the patient being placed upon her back, before as strong a light as possible, Dr. Temple placed her fully under the influence of chloroform; I then made a V shaped incision immediately over the protrusion, through the integument and superficial fascia, and dissected up the flap as cautiously as possible. The adhesions were found to be so dense that it was perfectly impossible to distinguish any of the anatomical coats of the gut; but covering after covering was raised, and divided either upon the director with the probe-pointed bistoury, or torn with the finger, until we came to the sac. Here a mass of adventitious fibrous growth was encountered that was perfectly surprising, it consisted of fasiculi extending in various directions and adherent upon all points. One by one, these were either torn apart or divided, and as the liberation took place, we found that the hernia was formed of a double knuckle of intestine, one being large and the other comparatively small. I then proceeded to free the adhesions and sever the adventitious growth; after accomplishing which I passed my finger along the canal to the femoral ring, where there was no stricture, saving a few fibres of the septum crurales; these I tore with my fingers, and by steady and dexterous manipulation, Dr. Temple succeeded in pressing back the gut, which returned with a gurgle to the abdominal cavity. The larger knuckle of the intestine yet remained, and after feeling its external surface we found it twisted and held as it were by a pedicle of fibrous growth, that resembled to the touch the vermiform appendage. This we were proceeding to cautiously divide and had succeeded in partially so doing, when we were obliged to desist from further operative procedure from the condition of the patient. For over an hour and a half she had been under the full influence of Chloroform, her pulse had become very feeble, her extremities cold, her skin clammy and her eyes glazed. I was fearful of a speedy termination of life, and besides from much handling the part of the gut as yet unreduced had become dry and very purple. We brought over the flap, arranged the parts in perfect apposition, applied nine interrupted sutures, and covered the wound with compresses wet with a solution of Calendula. She rallied slowly, but I must confess that I apprehended a disastrous termination of the operation.

August 19, 6, P. M.—Still comatose, lies with the leg drawn up, when moved in the least, complains of much pain. To keep the bowels quiet, I ordered, or rather administered myself, half a grain of Morphia; for I conceived it of the greatest import that a quiescent condition of the intestines should be maintained.

August 20, 10, A. M.—Passed a bad night: restless and disturbed after the action of the Morphine had passed off; tumor swollen and red, and extremely sensitive to pressure. Washed and dressed the wound carefully; kept constantly applied the Calendula.

6, P. M.—General condition about the same; pulse 130; more evidence of inflammation about the wound; complains of nausea, and some tenderness of the abdomen. Prescribed

Acon. 0,	gtt. x.	Verat. 3d,	gtt. xv.
Aquæ font,	℥ iv.	Aquæ font,	℥ iv.

A dessertspoonful every hour in alternation for six doses, then to allow two hours interval between the doses.

August 21, 11 A. M.—Pulse 110; passed a somewhat better night; no movement of the bowels. Tongue slightly furred, with red tip. Evidences of union taking place in the wound; tumor still large, red, and very sensitive; but the *nausea* and *abdominal tenderness had disappeared.* To continue the same prescriptions, taking, however, two doses of Aconite to one of Veratrum. The same application applied.

Aug. 22.—Pulse 98; skin good; rested better; no appetite; bitter taste in the mouth; somewhat coated tongue. Adhesion progressing in the wound.

℞. Nux-vom. 6th,	gtt. x.
Aquæ,	℥ viij.

A tablespoonful every two hours.

I was now as anxious that the patient's bowels should be moved, as immediately after the operation I had been to keep them quiet; for I believed, if the peristaltic action of the intestines could yet be maintained, and suppuration prevented in the wound, she might recover.

Aug. 22.—A part of the tumor—probably the part liberated from adhesions—went back with a gurgling noise; towards morning she had a free movement from the bowels; pulse about 85; tongue less coated. Extracted two ligatures, and continued the medicines.

From this period she continued to improve, and although a part of the hernia remains, yet it is much smaller; the wound has healed, and she is going about.

There is no doubt that the irreducibility in this case proceeded from growths of an altogether adventitious character below the femoral ring, and that moreover, the patient would have succumbed to peritoneal inflammation, had it not been for the beautiful action of medicine, given according to the homœopathic law.

November 13, 1862.—The patient paid me a visit to-day, having walked a considerable distance on foot. She expressed herself as very much benefitted by the operation; and, though a portion of the tumor remains, yet her movements are not impeded, and her general health much better than previous to the operation.

FIBROID TUMOR OF THE UTERUS.

The appearance of fibrous of tumors of the uterus is not a rare occurrence; indeed, that organ is allowed by many pathologists to be very prone to the development of such abnormal growths. Some authors have classified these structures with reference to their situation, others in regard to the arrangement of the fibres; thus we find Rokitansky makes three divisions,—the first having a concentric arrangement of fibres; the second having the fasciculi irregularly disposed, and radiating from numerous centres or nuclei, and presenting a rounded form and modulated surface, "which indicates an aggravation of fibrous centres, with reference to *density* and consistency, vascularity and volume; they may on the one hand be very dense, hard, and unvascular; or on the other, in consequence of an accumulation of cellular tissue in the interstices of the fibrous layers, they may be soft, doughy, flabby, &c., resembling a soft mammary gland, or a coarse-grained salivary gland." In the third variety he places the fibrous polypus.*

With reference to their seat, Bedford† calls these tumors either sub-mucous, sub-peritoneal, or interstitial, according to the seat of their development. I have met with them in several instances; but in all the cases that have fallen under my notice—excepting the one about being recorded—they have been within the cavity of the abdomen, arising from the external surface of the uterus,—making, therefore, the peritoneum their investing membrane. The most usual position, however, has been found to be within the cavity of the organ beneath the mucous membrane; and the next site to which they are said to be the most frequently attached, is the posterior wall or fundus uteri. They sometimes attain great size; Dr. Lee mentions one that weighed fifty-four pounds. In the magnificent collection of the Royal College of Surgeons several specimens are preserved, showing the immense magnitude of these structures. In thé same museum there is one uterus to which is attached nine fibrous outgrowths. Fibrous tumors are not observed before puberty; Bayle and Lee affirm that they are most frequent in virgins, and that they exist in 20 out of 100 middle-aged women.‡

With these few remarks we may proceed to the case in point. On September 5th, I was asked by my friend, Dr. Comstock, to see a case with him, of which he gave me the following interesting details:—His patient was a lady from the interior of Illinois, for whom he had prescribed several times; her husband coming to the city, and stating as precisely as a man is able *ever* to describe the peculiar symptoms of the female sex, and receiving the medicine, would return with it to his wife. From the details of a husband, Dr. Comstock could but diagnose a metrorrhagia, perhaps with ulceration of the neck of the uterus; the symptoms, as mentioned, being constant discharge of blood, pains in the hips and back, with severe suffering during coitus, &c. The medicines producing no relief, the Doctor advised that she should be brought to the city for a careful and minute examination. To this both husband and wife assented, and upon the first visit, a manual examination detected a tumor, of the size of a goose egg, lying within the vagina. Such was the history of the case. Upon visiting the patient, who, though of an exceedingly nervous temperament, was in a tolerable state of health (far better than could have been anticipated after such continual discharge of blood), I found her anxious to submit to the dictates of her physician, and allow the tumor to be removed. Accordingly, on the morning of the 7th of September, we proceeded to her hotel, and made a careful examination of the tumor, first with the hand and afterwards with the speculum. To the touch it was rather soft and doughy, on account, as Rokitansky tells us (and of which we afterwards were fully convinced), of the accumulation of soft cellular matter in the interstices of the fibrous matrix. I am quite sure that it is this peculiar "*feel*" (if I may be pardoned the expression) that gives rise to the difficulty of diagnosis between this variety of the fibrous tumor and the true fibrous polypus; and I can very well imagine that a positive idea cannot be formed until after the extirpation of the tumor. By inserting the index and middle finger of the right hand behind the growth, and carrying them along the posterior wall of the vagina to the os, a pedicle could be detected, extending somewhat into the uterus, and turning backward, to be attached to the fundus. The speculum revealed a highly congestive and bloody surface, somewhat lobulated on the one side, and rather smooth towards the anterior wall of the vagina. This tumor then, was a sub-mucous fibroid of the second class, but evidently well supplied with nutrient vessels.

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* Rokitansky, "Path. Anat.," Vol. II., p. 221.

† "Diseases of Women and Children," p. 219.

‡ Jones' and Skeivering's Path. Anat., p. 622.

The question may here arise: could this tumor have been removed by internal medication? Perhaps it might, but I am not in favor even of endeavoring so to do in such a case; and as far as I am able to judge, its removal by the knife was the most certain, speedy, and effectual means to relieve the patient. In looking over our literature in reference to this case, I find that, although many medicines are recommended for the hæmorrhages, and *Calcarea-carb.* for the *expulsion* of these fibroid tumors, yet those who have tried them have been almost invariably disappointed; besides, why should we endeavor to remove in three, or four, or six months by internal medicine, that, which by a judicious and carefully performed operation can be taken away in a few moments. In an article on the same subject ("Fibroid Tumors of the Uterus,") I find that Dr. Sampson, of Brooklyn, is of the same opinion, and that in the case he has recorded he was obliged to operate to relieve his patient.* Dr. Kidd also, in the *British Journal of Homœopathy*,† relates his experience in such cases, which is not, so far as the removal of the tumors is concerned, very encouraging. After carefully enumerating the symptoms and medicines to be employed, he remarks: "No medicine is known to cause the production of fibrous tumors; and, although medicines—such as *Sabina*, *Secale*, and *Ferrum-muriaticum*—are homœopathic, to the symptoms caused by the tumor, yet their use is only palliative, and in no way curative to the disease." He states, that he believes *Merc.-corr.* to be the best preparation in use, in alternation with those remedial agents mentioned above, to restrain the hæmorrhage. He appends four cases to his paper; the first one is very satisfactory, the tumor being external to the uterus, or of the sub-peritoneal variety; the Corrosive Sublimate was very efficacious, and the tumor, after treatment of *four months*, was reduced to a scarcely perceptible thickening of the parts. In the second case, after *three months* treatment, the external use of Kreuznach Bittern was recommended, and "after *many months use of it*," the patient was sent to Kreuznach, "where for two months she used the baths with an admixture of 'mutter lye.' Dr. Kidd then says: "On her return I found the tumor smaller, softer,—but *not any decided change;* her general condition being in the whole improved, and no symptom present *except menorrhagia.*" In the third case, after considerable treatment, he writes: "Her general health became very much improved, and the loss at the monthly period lessened; but *the tumor remains unchanged.* Of the fourth case, after treatment, he says: Her general health also became re-established, *without, however, any diminution in the tumor.*

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* United States Journal of Homœopathy, No. VI., p. 255.

† Fibrous Tumors of the Uterus, No. LXXIX., p. 52.

From these facts it appears to me, that we must agree with Dr. Kidd, and if possible, adopt a rational treatment; establish, if practicable, the general condition of the patient; lessen the menorrhagia; and, if the tumor is in a proper position, remove it at once.

This was the course pursued in the case before us; the patient was brought to the edge of the bed, the legs flexed upon the thighs, and the thighs upon the abdomen,—somewhat in the position for lithotomy; a pillow was placed under the nates, and the knees held as widely apart as possible, and the patient placed fully under the influence of Chloroform. I then introduced a Sims' speculum, and had the perineum drawn well backward by an assistant, while Dr. Comstock separated the labia with his dilators; the extremity of the tumor could then be distinctly seen in the vagina. Taking then a long pair of sharp tumor forceps, I buried their claws in the substance of the growth, and by gradual traction drew it to the mouth of the vagina; taking then a strong silk twisted suture, I carried it high up around the pedicle, and tied it firmly,—allowing the ends of the ligature to hang below the vagina; the forceps were then removed, the ligature, serving to hold the tumor down, being given to the assistant. I had intended at once to sever the pedicle below the knot; but, upon the suggestion of Dr. Comstock, I applied another higher up, and then with a curved probe-pointed bistoury carefully detached the fibroid.

The patient rallied well from the anæsthetic; was kept upon her back, and recommended to use tepid injections. In four or five days the ligatures came away, the wound healed rapidly, and she returned home cured.

Dr. Comstock has since seen the husband of the lady, who says "that a very different state of things now exists."

It may be well here to observe, that a large nutrient vessel was found, extending through the pedicle into the substance of the tumor, and several quite large vessels ramified through its structure.

Since writing the above, while perusing Mr. Brown's work,* I find that he has recommended a precisely similar method of operating, to that pursued in the foregoing case. After speaking of ligature, excision, the actual cautery, &c., he says: "In preference to any of these, I venture to propose another plan,—namely, the application of ligature or ligatures (according to the size of the pedicle), and instead of allowing the polypus to slough off in the ordinary way; or to remain twenty-four hours, as Dr. Churchill recommends, to excise that portion of the polypus external to the ligature, *immediately after its application*." Several cases and cures are then introduced, which are very interesting, and well worthy of attention. For circumstantial details, the reader is referred to the standard work of Mr. Brown.

TRACHEOTOMY IN DIPHTHERIA.

My ideas in reference to the propriety of performing tracheotomy in hopeless cases of diphtheria have already been given elsewhere to the profession; and the case in point has assisted in strengthening the conviction, that in the last stages of malignant blood disease, when the whole system is succumbing to a poison in the blood, that it is improper to attempt any operative procedure. If tracheotomy is even to be entertained in diphtheria, it must only be in the earlier stages, when the constitution has not been badly implicated, and when the suffocation, *and not the poison*, threatens immediate death. Then the operation is performed to allow respiration, and extract foreign substance from the trachea.

On the 28th day of August, 1862, a man came to me in trepidation, requesting that I would call and see a child who was very ill with diphtheria. The patient had been undergoing the usual routine of allopathic treatment, and had been given over to death. Upon visiting the patient, I saw that the case was hopeless: the breathing was rattling and stertorous, the face was blue, the eyes turned upward, and there was that peculiar blueness of the face that indicates regular toxicæmia. There was nothing to be done for the poor little sufferer, and I frankly expressed my belief to the parents. Having an operation to perform some distance from the city, I was absent until dusk. When I returned to my office I found the parent anxiously awaiting my arrival; he stated that the child appeared no worse, and he desired that an operation might be performed. I stated to him, that in all human probability, the proceeding would be unsuccessful; nay, that during the operation death might supervene. Still he begged, that at all events, the breathing might be rendered less difficult, and that he felt it his duty to have "the throat opened."

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* "On Some Diseases of Women Admitting of Surgical Treatment," by aac Baker Brown, F.R.C.G., p. 125.

In such a case, and after having again stated in stronger terms my opinion in reference to the performance of any operation, without any effect in changing his determination, I consented to attempt it. I requested Dr. Temple and Dr. Lungray to accompany me to the house, and found the patient in the same condition in which I had left him in the morning. It was now dark, and candles had to be lighted. I placed a pillow under the shoulders and neck of the child, allowing the head to fall backwards; while Dr. Temple administered a little Chloroform, to quiet the struggles, which really were more powerful than could have been imagined in one so much prostrated. It was not without some misgivings that the anæsthetic was used; but we were all gratified at perceiving that no bad symptoms resulted from it. This very point had often been a subject of thought, whether in diphtheria Chloroform could be safely administered? From the case in point, and the beneficial effects produced thereby, I am led to believe that it is in no way dangerous in such cases.

I then made the usual incisions, separated the sterno-thyroid muscles, sponged, waited for a moment or two, and divided the isthmus of the thyroid gland. Here considerable venous hæmorrhage ensued; of course, we desisted until it had been suppressed, and holding the structures apart with bent hair pins, I divided several rings of the trachea; the tube was then inserted. After the operation the child was very quiet, the breathing was very natural, and death came the following morning. The parents and friends expressed themselves well satisfied that the operation had been performed; as it rendered the last hours of the child comparatively comfortable, and left upon their minds the pleasing reflection that everything had been done to allay suffering, and every means used, although fruitlessly, to save life.

APHORISMS IN GUN-SHOT WOUNDS.

In these times of bloodshed every medical practitioner must more or less have his attention directed towards the management of *gun-shot injuries*, and, indeed, there is no department of surgical science which presents so much that is interesting, so much that is novel, so much that tends to convince the mind of the remarkable endurance of which the human body is capable, and lastly, how much surgery can do and has done in repairing injuries, saving life and preventing deformity.

Of those late surgical works bearing chiefly upon military surgery, the best that we have perused are the "Hand Book of Surgical Operations," by Stephen Smith, M.D., surgeon to Bellevue Hospital, New-York, and published by Balliere (1862); and "The Ambulance Surgeon," by P. L. Appia, M.D., published at Edinburgh (1862). The great difference that exists between these works, is distinctly seen upon a hasty glance at the contents of each. The first, (the "Hand Book") while it embraces, without theoretical encumbrance, the best methods of operating, and as far as may be, within a work of its limits, most of the new inventions in surgery and surgical appliances, yet it is evident that the work has been written by a civilian, and we read it as we read any other surgery, with feelings of interest, and with respect to the author as a *civil surgeon;* the book is perfectly orthodox, the advice is good, the authorities from which compilations have been made are all excellent—the best probably the world knows,—the wood cuts are well enough executed, excepting perhaps those illustrating the ligature of arteries, some of which are entirely "*mixed*;" and upon the whole the military conservative surgeon could never go much astray in following Dr. Smith's directions to the letter;—but "The Ambulance Surgeon" is like a novel; the description of *how* to perform the varied operations is, in the majority of instances, passed over very slightly, in some cases it is not mentioned at all; the author evidently and rightly supposing that a *surgeon* who accepts a military position understands the actual manipulation of an instrument, or the turn of a bandage; these being the primary qualifications of graduation at any medical institution. This certainly is a proper light in which to view the matter; but in fast America, under the pressure of a horrible war, there can be no doubt that many medical men have been thrust into the service of the United States—to whom the concise and particular descriptions of Dr. Smith's work would prove of invaluable service; to such it cannot be too highly recommended.

The author of the "Ambulance Surgeon," on the other hand, has been upon the ground, and the book bears the impress of experience *in the field*; it is full of practical lessons to the surgeon. In perusing it I have marked some passages which appear to me to be very much to the point, together with some remarkable cases, and have arranged them in the form of aphorisms for the benefit of the readers of the JOURNAL. The text is copied as near as may be verbatim.

DELUSIONS.—I. It is wrong *as a precautionary measure*, to lay open a wound, under the impression that it changes the gun-shot wound into one of a simple character.

II. There are no such things as *wind contusions*. Heavy projectiles, especially balls, can produce deep and serious injuries of the soft parts, and even to bones without necessarily breaking the skin, and these undeniable facts were accounted for by the extreme pressure which the air in front of the projectile underwent. But one need not be a natural philosopher to see that air is too delicate and elastic a medium not to separate on either side of a convex and limited surface, like that of a bullet, rather than un ergo extreme compression from it.

III. Internal injuries formerly attributed to the pressure of the air, (or wind of the ball) are evidently due to the *obliquity* with which the bullet impinges on the body and the diminution of its force at that moment.

IV. The bones in consequence of their rigidity do not yield, like their soft coverings, to the pressure of a missile, which retains a degree of velocity sufficient to cause comminuted fractures: these again entail internal lacerations which may not extend so far as the integumental coverings.

Illustrations.—At the bombardment of Antwerp, in 1814, a ball shattered the legs of two officers, who were each holding by the arm a third, placed so near them, that the ball must have, it is conjectured, passed between his legs.

Larrey cites several cases where the ball produced serious injuries, sometimes mortal, without injuring the skin. The Crimean campaign afforded many instances of internal lacerations with unbroken skin, which in former times would have been attributed to the wind of the ball.

Dr. Quesnoy saw an engineer officer who had his forearm broken without any external symptoms of injury. At Alma they took into the ambulance a soldier, whose forearm was in its interior a mere mass of pulp, though his skin was unhurt.

Shock.—I. The general shock to the system is not a *constant* symptom in gun-shot wounds.

II. In general, pain is a *late* symptom of a gun-shot wound.

Illustrations.—In the Crimean war, men with their upper and lower jaws crushed were known to walk from the trench to the ambulance. One of these men, from whose pharynx some fragments of bone were removed, though unable to speak, could write what he wished with a steady hand. At Alma, men whose limbs hung by a mere shred of skin were in the full enjoyment of all their senses.

Varieties of Gun-shot Wounds.—I. Wounds from fire-arms are of infinite variety, according to the velocity of the projectile, its bulk, shape, and direction, with regard to the body, and also the numberless changes of posture which the latter may assume at the very moment when the accident occurs.

II. The relative frequency with which the different parts of the body are struck by the bullet, may be seen by the following table:

	Cases.		*Cases.*
Leg, - - - -	100	Knee-joint, - -	54
Thigh, - - -	97	Foot, - - - -	29
Face, - - -	61	Elbow-joint, - -	22
Arm, - - -	60	Neck, - - - -	22
Hand, - - -	57	Genitals, - - -	18
Chest, - - -	53	Ankle-joint, - -	15
Abdomen, - -	52	Shoulder, - - -	13
Shoulder, - -	42	Hip, - - - -	6
Skull, - - -	37	Vertebræ, - - -	10
Fore-arm, - -	36	Wrist, - - - -	2
		Total, - - -	784 cases.

III. It has generally been remarked, that the orifice of entrance is smaller than that of exit,—its margins more sharply cut than the latter, which is usually swollen, and with everted edges. In the Parisian hospitals, where in 1848 hundreds of wounded were collected, I sought often to establish this difference; but *I did not find it so well marked as has been generally described.*

IV. According to the velocity of the projectile, a wound presents either: *a.* A simple bruise, without laceration of the skin. *b.* A wound with a single orifice. *c.* A wound with a double orifice. *d.* When it has carried off a limb.

V. A cylindro-conical ball produces a terrible shock, and *splits* and *tears* the bone. This comminution of the bone has no parallel in former surgical annals.

VI. The most serious consequences of wounds from conical bullets depend on *three* causes:—1. The conical ball is never turned by a hard or elastic body, but passes straight through it. 2. It may, nevertheless, in its course through the body, change its longitudinal position, so that it strikes organs with its long axis, causing very considerable damage. 3. It is probable, from the pointed shape of the conical ball, that it causes *less* actual loss of substance, but at the same time more *lateral separation of tissue*, from its wedge-like form.

VII. The surgical experiences of the Crimean war have been rather *discouraging*, *as regards* the resources of *art*, for *preserving limbs which have sustained comminuted fractures.*

Foreign Bodies.—I. The foreign bodies which complicate and aggravate gun-shot wounds are: 1. The destroyed tissues. 2. Bone splinters. 3. The ball itself. 4. Pieces of clothing, woolen, or other objects encountered by the ball.

II. External injury may be insignificant, compared to the internal destruction of parts; and from external examination one *might be led to underestimate* the mischief which has occurred *within*, and from a superficial view to entertain a hope of cure, which turns out detrimental to the patient, and from which one is only warned by repeated disappointments.

III. The velocity of a ball influences the extent of its injuries to a bone, and it is generally thought that these effects are less in *inverse* proportion to its velocity.

IV. The character and shape of a ball is influenced by its encounter with hard substances.

Illustrations.—Laroche relates a curious case of one of his relations, who had twenty Napoleons in his pocket, which, struck by a ball, were driven into his belly. In the Crimea fragments of shell were found lodged in the abdominal parietes, in the thigh, and in the leg.

The following is a list of some of the foreign bodies found in thirty-one cases in the revolution of 1848.

Cases.
5. Small bits of ball.
2. Small shot.
3. Pieces of wadding.
3. Pieces of shoe.
6. Pieces of cloth and shirt.
4. Wadding and tow.
2. Worsted.
1. Bundle of hair.
1. Many hogs bristles.
1. Piece of cast iron.
1. Small piece of wood.
1. Copper ornament from shako.
1. Nail.

With reference to the alterations in the form of the bullet, some very curious cases are mentioned.

1. A ball split on the edge of the petrous bone.
2. A ball split in two by the crest of the tibia, which broke the latter, and half remained in the periosteum.
3. A ball divided by the orbital arch into two parts, the larger of which lodged behind the eye at the bottom of the orbit.
4. A ball split into three parts by the orbital arch.
5. Division into three parts by the edge of the clavicle.
6. A ball shot into the skull of a subject, which spread out on the internal table of the skull like a piece of tin.
7. A ball divided into two parts upon the femur.
8. In another soldier a bullet, which had struck the great trochanter, was divided into three separate pieces.
9. The oddest example is related by M. Servier. In Algeria a ball broke into five fragments on a rock, five or six paces from a grenadier; the *first* fragment struck and broke the right ankle, *two* others pierced further down, the *fourth* wounded his right thigh, and the *fifth* lodged in the skin on the back of the head.

Larrey relates minutely of an artilleryman, who was struck by a ball in the right thigh. The femur was broken; as for the ball, it pierced the thickness of flesh, turned around the bone, and ended near the anus, by dipping into the hollow of the thigh. When he was brought to the ambulance, neither he nor his surgeons suspected the presence of a foreign body; The patient even was of opinion, that the same ball had passed on and struck another bombardier. It was only when performing amputation that Larrey discovered a ball *five pounds in weight.*

Dupuytren relates, that a ball *nine pounds in weight* was so completely concealed in a patient's thigh, that the surgeon did not at first discover its presence.

On the morrow after the taking of the Mamelon Vert, a soldier applied at the ambulance, said to be wounded in his left thigh; about its middle was found a small circular aperture, like that from a round ball,—not a wound of exit. On examination they could feel an obscure swelling in the popliteal space; but otherwise there was no swelling, redness, or special amount of pain. A large incision enabled them to discover and extract an enormous shot, which had run round the limb *without breaking it.*

TWISTING COURSE OF THE BALL.—I. A ball may enter at one part of the body and pass out at another leaving two apertures apparently quite independent of each other.

II. Two apertures may be found opposite to each other, including between them in the straight line which must unite them, organs important to life, which, if the ball had touched, must inevitably have been followed by death, whence one naturally concludes that the ball must have passed round these organs.

III. The wandering course of a ball cannot in the majority of instances be known by the condition of the wounds.

IV. Spitting of blood is *not* a pathognomonic sign of penetrating wounds of the lung. Simple contusions and superficial wounds being complicated with it.

V. One is forced to admit very often, that there has been a deviation in the course of the ball, in cases when the patient's progress has been too favorable to allow the belief that the ball has traversed any vital organ, and so to suppose that it penetrated in a direct line, when the severity of the symptoms seem more in proportion to the importance of the organs injured.

Illustrations.—Roeng mentions a case of simple perforation of the right shoulder with no trace of fracture, but, nevertheless, a line drawn between the two apertures passed *straight through* the head of the humerus. Herman declared he saw a case, in which the ball entered near the thyroid cartilage, and which often going round the neck, returned to the same point at which it had entered, and was extracted at that spot. A soldier was struck at the moment he extended his arm to mount a ladder. The ball entered the middle of the humerus, passed along the limb above the posterior aspect of the thorax, opened for itself a passage in the abdominal muscles, pierced those of the buttock, and passed again upwards to the anterior aspect of the opposite thigh.

Diagnosis.—I. In order to determine the treatment of a wound it is necessary to know its *depth* and *direction.* This cannot always be accomplished by drawing a *direct line* between the apertures.

II. It is necessary in such cases to assume that the wounded man was in a particular position, which he sometimes remembers, and can assist in the diagnosis by telling the surgeon.

III. The inferior extremities being, during action, less frequently approximated to the trunk, never present the same complications as the arms. There are but few cases where the ball has broken both thighs, or even both legs.

IV. It is *useless* and *wrong* even to have an *inclination* to determine *with the probe*, the depth of a wound of the splanchnic cavities. This practice which some surgeons delight in, to *enhance the apparent importance of their own functions*, should be especially repudiated.

V. In examining wounded *limbs*, the *probe becomes an invaluable guide* enabling us to ascertain the presence of splinters, &c., and should be used as early as possible.

VI. The introduction of the finger, especially of the probe, is always a painful operation, so it is well to perform it when the limb is still numbed by the shock of injury.

Illustrations.—In one case, at St. Louis, the ball had traversed the left biceps muscle, then had penetrated the chest by the axilla, and had gone out again above the left lumbar region. To understand the course of this ball, one must imagine the body much bent forward, and the left arm extended to the uttermost. A ball entered in the upper third of the right arm and went out just above the nipple. If the arm is hanging, the straight lines uniting these two wounds to the body, would in a manner seem to indicate *four* skin wounds. But as there were only *two*, we must imagine that the arm was stretched out when struck.

Surgical Prognosis.—I. Wounds of the *heart*, of the *lung*, and of the *brain*, will be generally fatal when they reach *the centre* of the organ, as the base of the brain, the root of the lung. As to the *heart*, however, although a wound of it appears incompatible with life, yet cases are upon record to the contrary.

II. The *spinal marrow* cannot be wounded without causing death, whether from its importance to life, or from the extensive osseous injuries which of necessity accompany it.

III.—Penetrating wounds of the *abdomen* are almost always fatal, owing to the impossibility of retaining the edge of the wounded intestine in a suitable position for cicatrization.

IV. Wounds of the *liver* can recover with a hepatic fistula.

V. Lacerations of the *bladder* are almost always followed by fatal results from urinary infiltration.

VI. *Fracture of Bones.*—The prognosis depends upon several causes: upon the degree of splintering, the rapidity with which new bone is thrown and the extent of suppuration.

Fractures of the Skull owe their unfavorable prognosis, independently of the extent of injury, to the inflammation which they set up, often slowly and insidiously, from without inwards, through the thickness of the cranium to the cerebral mass.

VII. Wounds *of the pelvis* admit a much more favorable prognosis than fractures of the long bones.

With regard to the treatment of gun-shot wounds, the "Ambulance Surgeon" presents a fund of knowledge, and it is my intention, at some future day, to continue in the above concise form, a resumé of the most important points therein contained.

Article XXV.—*Clinical Contributions.* Number one. By E. A. Guilbert, A.M., M.D., Professor of Obstetrics, &c., in the Homœopathic Medical College of Missouri.

Case 1. *Synovitis.*—Thursday evening, December 15th, 1859, I was called to a patient affected with a disease of the knee,—the mother averring that the boy was "vera bad intirely." I found a bright-eyed intelligent Irish lad, aged thirteen, in the suppurative stage of acute *synovitis.* Two weeks before the day of my visit, while playing with a sharp hatchet, he had wounded himself, one corner of the implement making an incision about an inch in length on the outer aspect of the right knee; the wound doubtless penetrating the joint. Being a courageous little fellow, and, like those of his class, unaccustomed to being petted into effeminacy, he thought but little of the injury, and consequently said nothing about it to his mother. Twenty-four hours subsequent to the accident—during which interval he had played about as usual—he began to suffer much pain in the knee, and on examination that night, it was found to be very considerably swollen and inflamed. By the following morning his constitutional and local symptoms had much increased in violence, and the mother, becoming frightened, sent for an allopathic physician. This gentleman directed poultices to be applied to the knee, and administered anodynes quite freely. He continued to visit the case from day to day for a week, and during one call he made a free incision into the swelling—the result being the evacuation of a quantity of pus. The pain, swelling, and fever did not, however, subside under this treatment, the constitutional disturbance deepening instead of diminishing in intensity, and the tumefaction extending upward to the beginning third of the thigh, and downward to near the ankle. At this juncture the doctor stated to the mother, that in all probability amputation of the thigh would have to be performed, in order to save the boy's life. Not being willing to allow this, the woman discharged the medical man, and called in another of the same school, who treated the case in much the same manner for four days, and then voluntarily ceased to call; his prognosis likewise was unfavorable. At the close of the fourteenth day I saw the case. I found the knee, thigh, and leg even more swollen than they had ever been. The surface of the affected parts was *very* hot and sensitive, and of a purplish color; the accompanying fever was quite high, the pulse being 120;—the face was sunken, the eyes glistening, the lips blackish, the tongue dark-red at tip and edges, which were dry, the remainder surface of the member being covered with a dirty yellow coat; the bowels were constipated; the urine scanty and high-colored;—there was complete anorexia, and great emaciation. Around the opening made by the bistoury in the abscess, exuberant granulations had sprung up, and covered a surface as large as a quarter of a dollar; they were very sensitive, and bled at the slightest touch. A sinus began in the centre of this crown-like formation, and ended within the joint. Through this canal laudable pus was discharged in large quantities; pus also exuded from the granulations. On the inner aspect of the knee the swelling was quite protuberant; fluctuation was observed at this point, as well as elsewhere about the joint. The boy was suffering intense pain in the knee, thigh, and leg, to secure relief from which he had been taking large quantities of opiates during each twenty-four hours, with but partial success. He was obliged to lie upon his back constantly, and for sixteen days his bed had not been made, owing to the severe pain which followed, and interdicted even slight movements. The only applications that were being made to the knee were *slippery-elm* poultices.

Such was the unpromising case to which I had succeeded. My prognosis necessarily was unfavorable. I feared that the boy would lose his leg ultimately (from caries of the heads of the long bones, which entered into the formation of the joint); or that, if he were saved therefrom, it would only be with an anchylosed knee. I said as much to the mother. Knowing, however, how often it is permitted those who loyally practice that system of medicine erewhile delivered to his disciples by the MASTER, HAHNEMANN: to "pluck from the nettle danger the flower safety," I consented to take charge of the case, and at once began treatment.

To the exuberant granulations I applied repeatedly a crystal of *Cupri-sulph.;* the application was gently but thoroughly made. I then *painted* the knee freely with *tinct. Iodine*, directing flannels wet with *hot* water to be placed over the whole of the inflamed surface, covering these with dry clothes. These fomentations I ordered to be renewed every three hours during the night. Putting fifteen drops of *Acon.* 2, in a glass two-thirds full of water, I directed a dessertspoonful to be administered every hour until my next visit. The following morning I saw the patient again. He had passed a better night than usual, having had considerable sleep. The fever abated about one, A. M., and was followed by some perspiration; tongue moist, pulse 100; expression of the features better. The knee and adjacent affected parts were rather less inflamed, and decidedly less sensitive to the touch. Exposure of the leg to the air at first caused an increase of pain. Considerable pus—at least a gill—had been discharged during the night. The granulations surrounding the outlet of the sinus were less prominent and of paler hue. I made an attempt slightly to flex the leg, in order to place a support under it, for reasons apparent to the surgeon; I did not succeed, because of the extreme pain which interfered. I again painted the knee with the *tinct. Iodine*, and ordered this application to be renewed at night; I directed the continuance of the fomentations. As the boy had this morning some desire for food, I allowed him the boiled milk and baked apple, for which he asked. I exhibited *Hepar-sulph.* 3, about 25 grains in a glass of water, a dessertspoonful every two hours, except when he slept. During the previous night the mother had given one dose (5 drops) of *tinct. Opii-acetas.* I prohibited any further exhibition of this drug, and endeavored to impress upon the intelligent little fellow the necessity of an avoidance of palliatives of such an objectional character. He assured me that he would take nothing of the kind thereafter, and I believe he kept his word.

Saturday, Dec. 17.—This morning I found the boy still better. Had passed comparatively a comfortable night; had not had so much fever, and had suffered less pain; pulse 90; has some appetite; has had a slight alvine evacuation; urinary excretion more copious, but still high-colored, and loaded with a lateritious sediment; says he feels stronger. The knee and parts adjacent are decidedly less inflamed, and the swelling above and below the joint is much reduced; the knee is quite as much swollen; he cannot bear to be moved as yet, and cannot flex the leg; not so much pus has been discharged. On examination the sinus was found to be nearly closed; I enlarged the aperture by a deep and free incision; considerable pus at once flowed out; the granulations were again touched with the *Sulphate of Copper*, and the whole knee was repainted with the *tinct. Iodine;* poultices of flax-seed were ordered to the joint; continued *Hepar-sulph.* 3, every three hours.

Monday, Dec. 19.—The patient is still mending:—had no fever last night or yesterday; has slept pretty well both nights, and looks very much better; he still suffers pain, but he remarks that "it lessens every day." There is a marked reduction in the swelling, and sensitiveness of the knee, and but a small quantity of pus has been discharged during the past twenty-four hours; the thigh and leg have about resumed their normal size; a large crop of iodine vesicles are noticed on the knee; the granulations are still somewhat prominent, but are not near so irritable. His appetite is pretty good, his tongue is cleaning, and his bowels have moved once each evening. He is able himself to draw the thigh towards the abdomen, although the effort is productive of pain. The granulations received the *Sulphate of Copper* again, and the *tinct. Iodine* was re-applied to the knee; the poultices likewise were continued;—diet, beef-tea; prescription, *Merc.-iod.* 2, three grains every four hours. I had no materia medica data to guide me in the selection of this remedy; but my knowledge of the value of the *two* thoroughly proven drugs out of whose union has been evolved the excellent medicament in question, and the fact—often commended to my attention by experience—that the blending of these twain-potential agents has given us a remedy which is frequently more efficacious in certain cases, than either of the others is separately, led me to believe that it would vastly aid me in my efforts to benefit my patient. I was not disappointed.

On the 21st December I found the swelling, pain, and sensitiveness to the touch so much less, and the general complexion of the case improved to such an extent, as to warrant me in making a needed change in the boy's uncleanly surroundings. He was removed to another bed, and the sick-room thoroughly aired. The bed on which he had lain, and from which it had not been possible to remove him for some three weeks, was now thoroughly renovated and re-arranged. He bore the exercise very well, suffering comparatively little pain. The discharge of pus now being limited, I discontinued the poultices,—ordering flannel cloths, saturated with hot water, to be applied several times each day instead. The *Iodine*, reduced one-half in strength, was directed to be applied to the knee once each day. The *Merc.-iod.* 2, was continued,—a dose (about two grains) being given every five hours, except when he slept. His diet was made more generous.

Not to multiply words, suffice it to say, that I visited the boy every other day, until December 31, and made my last call January 3, 1860. His improvement was progressive and perceptible from day to day; and, considering the nature of his surroundings, was remarkably rapid. On December 27, the fomentations and the *Iodine* were discontinued: and the wound, from which only an insignificant quantity of pus now oozed, was dressed with *Calendula cerate.* During this visit sufficient was had to show that he would regain the use of the joint, I so stated to the family. *Merc.-iod.*, 3, was ordered twice daily, and he was directed to perform flexion and extension of the affected leg repeatedly, but cautiously. January 3, I found him sitting up awaiting me, and he proudly exhibited his pedestrian capabilities, by making, limpingly, a tour of the room. The wound had entirely healed, and no evidence of a disease of the joint was detected by careful manipulation. The integuments of the knee were still somewhat tumid, but only so much tenderness remained as one would expect to encounter in convalescing inflamed tissues. To this tumefaction, and to the fact that the flexors and extensors of the extremity had been unused to labor, was doubtless ascribable the halt in the boy's gait. He was directed to take *Merc.-Iod.*, 3, night and morning, to continue his cautious use of the leg, and to report on the 7th.

Jan. 7, 1860, the mother of the boy came to my office, and reported the case to be still improving. His general health appeared to be entirely restored. A little tumefaction and slight tenderness of the knee remained, but the facility with which movements of the leg were performed, was day by day increasing, the boy being but slightly lame. Being on the eve of departure for Cleveland, to be absent until March, I prescribed *Iodine* 1st, as I was out of the *Merc.-Iod.*, a powder to be taken every night for two weeks; requesting the woman to report to my partner provided the case should not continue to mend. No report was made, for when the fortnight had elapsed, the boy was so well as to resume attendance at school. On my return home, about the middle of March, I met the little fellow, one day, as I passed the school-house. He was not at all lame, as I had ample opportunity to discover, for he was playing at leap-frog. He told me that he had no further trouble with the knee from the time he was virtually discharged, although he was slightly lame for several weeks, especially after a long walk. Now, the joint was perfectly well, and its mobility fully equal to that of its fellow. He has never since suffered any inconvenience therefrom.

The results of the treatment of this severe and unpromising case, were so satisfactory in every particular, that it served to increase *even* my confidence in the theory and practice of our dear and beneficent system of medicine. Such successes—and "their name is legion"—as the profession every where can attest, add new lustre to the memory of the wise and indomitable man, who elaborated, perfected and fostered, and conferred upon humanity that priceless boon which we term HOMŒOPATHY.

That the boy recovered so promptly and completely, is surprising. One familiar with surgical diseases, and with surgical authorities, would naturally have expected, as one of the sequelæ, the total disorganization of the inter-articular cartilages, and a consequent anchylosis. The most eminent writers regard penetrating wounds of the joint as very dangerous, and especially where the constitutional disturbance, and local manifestations are of so severe a character as they were in the case just detailed. It is no wonder the allopath should have thought of amputation. Mutilation has been the *dernier resort* in numbers of such cases heretofore, especially in European hospitals. Cases of acute synovitis of the knee joint are quite common hereaways. They result from various causes, among the most important of which the impressions of cold are to be mentioned. They generally terminate in hydrops articuli. I have ever found these cases to yield promptly to *Iodine* locally and internally. I have never, under homœopathic treatment, had occasion to puncture the joint and evacuate the contained serum. Had the case under discussion been differently treated in the onset, I have no doubt, from my knowledge of the success of homœopathic medication in similar cases, that he would have escaped suppuration, and would have been well in a week's time. It seems to me the case is worth reporting, hence this article.

ARTICLE XXVI.—*Case of Ascites.* By E. C. WITHERILL, M.D., of Cincinnati, Ohio.

THE following case of ascites, remarkable as well for the quantity of fluid evacuated, as for the cause producing it, I have thought of sufficient importance to merit being placed upon record.

Miss F——, aged about eighteen years, had had when I first saw her in November, 1856, a dropsical enlargement of the abdomen for some six or eight months, which up to that time had progressively increased. In the examination made at the time, I was unable to arrive at any satisfactory conclusion as to the cause which had produced it. She was a person of small stature, but from a child has usually enjoyed good health. Menstruation was established at about the age of fourteen, and had continued regular until about eighteen months previously, when suppression took place from exposure to cold. This was followed by an inflammation of the breast, which terminated in suppuration; after which menstruation was scanty and irregular, and in some months was followed by an enlargement of the abdomen. No information I could get as to the origin of the swelling in the hipogastric or inguinal regions, could lead to the supposition that one or other of the ovaries was its primary location. The urine was scanty, but not otherwise unnatural. The bowels acted regularly, with sufficient frequency, and the evacuations had in them a sufficiency of bile, and were in other respects healthy. The skin was not unnaturally dry or harsh, the complexion somewhat pale, but without any tinge in it or in the conjunctiva of jaundice, and the liver itself had never given any marked indications by pain or otherwise, of being the seat of disease. The abdomen seemed to be partly uniformly enlarged, but I thought I detected some unnatural hardness in the right hypochondrium, although I was not sufficiently certain of this to base upon it any especial opinion as to the diagnosis.

After an ineffectual treatment of some weeks, I performed paracentesis of the abdomen, quite as much with the view of endeavoring to clear up the diagnosis of the case, as to afford my patient relief from the oppression occasioned by the dropsical accumulation. I was then enabled, through the relaxed walls of the abdomen, to ascertain the existence in the right hypochondriac and iliac regions of the tumor of considerable size, apparently attached to the parietes of the abdomen, and which I was partially able to isolate from the parts beneath; another of a smaller size to the right of the umbilicus, which I was perfectly able to isolate and grasp with the portion of the abdominal wall to which it was attached between my hands; and a third of smaller size and less clearly defined in the left iliac region.

It seemed sufficiently clear then that these tumors, or with others too deeply seated to be reached by an examination, must be the cause of the dropsical accumulation. But the knowledge, unfortunately, did not give any satisfactory light as to the course of treatment to be pursued. Firm compression of the abdomen was tried; the various homœopathic remedies usually recommended in ascites, as well as Digitalis in pretty large doses, were successively resorted to with little effect in increasing the quantity of urine, or in checking the accumulation of fluid.

Under the temporary charge of an allopathic physician, the use of hydragogue cathartics had no better effect, and at last, despairing of being able to do more than to afford temporary relief, we were reduced to the expedient simply of using the trochar as often as the fluid, by its quantity, became too oppressive.

These operations were had recourse to in all, from December, 1856, to the period of her death, which took place in June of the present year, twenty-six times; at intervals which lessened from six to eight months in the earlier part of time, to four or six weeks as the case approached a conclusion. The quantity of fluid removed at each operation was, at first, about *five or six gallons*. This gradually increased to *eleven or eleven and a half gallons*; and I estimated that the whole quantity removed was from *two hundred to two hundred and fifty gallons.*

The greater part of the fluid was quite transparent, nearly colorless, and of a somewhat ropy consistence, like diluted albumen. Towards the termination of each operation it became slightly mixed, either with whitish opaque flakes, as if the albumen had been partially coagulated, or with a whitish fluid of a secreting consistence, and of this latter fluid two or three tablespoonsful usually passed the canula at each operation.

The *post-mortem* removed any doubt that might have remained as to the nature of the case. The three tumors that we had been able to feel through the walls of the abdomen, and which were found after each operation to be gradually increasing in size, were not the only ones present, some eight or ten were found attached to the anterior wall of the abdomen, varying in size from a hen's egg to that of a fœtal head at term, and one flattened mass occupied the whole of the omentum. Everywhere they seemed connected with the peritoneum, springing, except in the case of the one occupying the omentum, apparently, from its outer surface, and gradually covered by it, although the latter seemed sometimes lost in their substance. They corresponded in their character more nearly to the description given by Miller of cysto-sarcema than to any thing else with which I am acquainted,—consisting of tolerably firm sarcematous masses containing cells. The larger of these were usually filled with a glairy fluid of considerable consistence, and nearly colorless and transparent, while in some of the smaller was found a whitish-creamy fluid, somewhat resembling pus. Traces of calcareous deposition were also found among them. The masses weighed when removed from the body something over twenty-five pounds.

No other indications of disease were observed. The liver seemed not unhealthy, the spleen not above the normal size, the stomach and intestines in good condition, and the mesenteric glands not enlarged.

From having discovered what seemed so palpably the cause of the dropsy, the uterus and ovaries were not so closely scrutinized as they should have been, but I feel quite convinced that no marked enlargement or other disease could have existed in them without attracting our attention.

ARTICLE XXVII.—*Homœopathy in its Connection with the Progress of Man.* By J. M. LONG, M.D.

THE idea of the gradual and certain progress of the material earth and of the human race, has become so generally accepted, that neither argument or historic proof are required to illustrate it. In the various forms of matter we may discover no apparent change, but in the mass of the earth's productions we can find a steady advance from the lower life to the higher. In looking to the human family also, we must not take individuals to verify the statement of man's progress, but we must consider races in their relations to each other. Thus we should not compare our generation with an Apollo, but with the ancient Grecian nation as a whole. In admitting the fact of progress in the human family, as in the material world, we lay the foundation on which may rest some of the most beautiful laws of science.

We find that every age has made scientific discoveries that harmonize with its condition. Every great discovery has fitted the age and the men that made it, and in every investigation into the history of the past we gain the satisfactory evidence that every discovery of truth has awaited only the right man and the right time.

There are two methods of arriving at truth. The one is, slowly to commence at the simplest laws and work upward and forward to the higher and grander truths; the other is to grasp the higher and trace its connecting links downward to the simplest laws. Men of genius are always indebted to the latter course, and most great discoveries in science have resulted from the genius of some master mind, while the patient toilers, have reached upward through experiment and fact, and thus completed the chain of evidence which must ever link a great truth to the simple laws of life.

The science of homœopathy looks upward to the genius of Hahnemann, who represents the present age of medical truth even as the summit represents the mountain. The progress of homœopathy since his discoveries has been without parallel, and we must remember that in any other age, we could hardly have expected such magnificent results. We find that the century needed the man and the idea. It is no new law that is now just becoming effective. No, it is an old law first discovered and made practical, and we owe gratitude to those students of the past, who have brought up the facts of science to their present proud position, and it remains for us not to reject these facts, but to fit them to the present. Hippocrates and Æsculapius with their crude compounds were laying the foundations for the more beautiful law of cure, and *we* may be as proud of their discoveries and attainments, as may the school that claims them as its founders. It has ever been the effort of medical science to aid nature in her efforts. The difference between homœopathy and other systems consists in the fact, that while it works in and through nature, *they* work outside and in antagonism with nature. Thus one may be called the sympathetic process, while the others are eminently antagonistic. The true physician should bend all his efforts in the direction of aiding nature, and whatever new remedial agent we may bring to the pharmacopia, we must be sure to point out the similarity of their effects with the symptoms to be changed. Thus nature ever points out to us her remedies by her efforts, and in simplicity creates a science that needs only true-hearted students to reveal. But nature takes her own methods, and produces results in her own fashion, and many of our doubts and failures result from being unable to detect these methods. The failure of allopathic practice in these days is owing more to the laws of nature, working in the system of man, than to the practice itself. It is a fact that the same remedies that once produced results most desirable will no longer do so. The progression of primates has become a fact to men of science. Certain substances that in the hands of the chemists, shew certain ingredients in their simple state, yet fail to produce like results in all cases. Thus for instance, for more than a century a medicine has been manufactured in London, known as Pulvis Jacobi (or James' Powder). Large quantities were annually sent to the East Indies by the East India Company. It was found very effective in the treatment of fever. Its composition was kept secret until the death of the Messrs. James, when, from philanthropic motives, their successors made known the recipe. It was said to be composed of phosphate of lime and oxyd of antimony. Soon every apothecary began the manufacture of James' powders. The East India Company advertised for a large amount, which was furnished at a lower rate than by the Messrs. James, by a London manufacturer; but the medicine failed entirely in its effects. The Company refused to pay the bill, and a law-suit ensued. The best chemists in the country were called upon to analyze the article. It was found to contain the same ingredients in the same proportions; but the Messrs. James compounded their phosphate of lime by calcining the bones of animals, while the London Company calcined the phosphate of lime rock from Estramadura. Every chemist declared there could be no difference in the substance, and none believed there could be any difference in the effects; and yet, when tested, the one proved remedial while the other was valueless. This fact shows plainly that the combinations in nature are dependent for their effects upon the condition they have attained by progress, for we must call the phosphate obtained from the bones of animals a progressed mineral, while that from the lime rock was crude, and, therefore not so fitted for the higher organization of man. Does not this fact show clearly that the more refined remedies may ever be expected to be the most efficient?

Again, Carbonate of Magnesia, treated with Sulphuric-acid and crystallized, forms Sulphate of Magnesia or Epsom-salts. The magnesia rock at Hoboken contains veins of the carbonate, when crystallized and taken to the chemist he will pronounce it pure; but if it is used as a medicine, it will cause griping. if not death. But if you dissolve these crystals in water and re-crystalize them, doing it a hundred times, the result is a salt, which will not gripe at all, and will have the medical effect desired; but if you take them to the chemist he will, by analysis, detect no difference between the latter and the former. Thus we find that the system of man is able to detect the differences that mere chemistry cannot. There is no agriculturist of the present day that does not choose his fertilizers from the higher combinations. Thus bone-dust is preferable to phosphate of lime from the rock, and it is said that ashes from a higher class of plants furnishes potash superior to that from a lower class; thus a burnt hay-stack renders the soil underneath it capable of bearing larger crops of potash-plants than would the same area of soil treated with a greater quantity of potash from forest productions. Thus nature proves herself true to the principles of our science. It is assimilation that nature demands, and the remedies of the homœopathist always look more to the speedy assimilation of particles than to the magnitude of results from quantity.

The human system is a laboratory of most delicate power. Nature needs no workman outside of herself, and hence all the study of the physician should be turned to the aid of nature. When we find by such facts as we have stated that changes produced in substances too refined to be detected by chemistry, will yet be made known in the human system and in plants, are we not ready to believe that in all cases the remedial agent best adapted to man is that which is most readily assimilated? Hence the more refined particles of homœopathic preparations have a more certain effect than the cruder medicines of the old school. Let us also remember that our efforts ought to tend ever to the higher and not to the lower means of cure.

As the present age produces its science, so will the future, and if we are to reform the medical practice of the world, it is not by turning back, but by looking forward. We must meet the time with its appropriate aids; let the devotees of Hippocrates and Æsculapius glory in the ages gone by; the standard-bearer of homœopathy is ahead, and he bears ever this grand device: *excelsior*.

The present condition of the world is not its highest, and we are but laying the foundation for the future, which may build a structure that we cannot even yet fashion in our imaginings, so pure and harmonious will it be in design and proportion. If any of us would lay a stone of this building, it must be done by consistency and devotion to the science we profess to study, with a steadfast aim towards the truer and more perfect.

ARTICLE XXVIII.—*Puerperal Metritis, with Exfoliation of the Entire Mucous Membrance of the Uterus.* Reported from memory by E. HOLLEY, M.D., of Hudson, N. Y.

MISS D., unmarried, aged eighteen, was confined and delivered of a boy, May 17, 1862. Her labor was natural and easy,—not requiring the aid of a physician, as her mother was a nurse and acted the part of a midwife. I was consulted some three hours after the birth of the child, on account of the absence of after-pains, and the retention of the placenta. I sent her Puls. 0, and Secale 0, to be taken in water in alternation, which soon brought on the pains, and the placenta was expelled without any unfavorable symptoms. Miss D. was very smart, and seemed likely to soon be up and well; when on May 25th (eight days after confinement) she complained of a strange feeling in her head, with some delirium, which run into a puerperal fever, growing worse daily until May 29th, when I was called to see her. This was four days after the first unpleasant symptoms were felt by the patient. I found her suffering from puerperal metritis:—pulse about 130; tongue heavily coated; loss of appetite; thirst; suppression of the lochia for the last four days, and in its place a discharge of bloody clots; the secretion of milk very scanty; great prostration; much pain and tenderness in the region of the uterus, which was much enlarged, extending up half way to the umbilicus; tenderness extending laterally along the region of the broad ligaments, and also up the peritoneum of the abdomen; bowels confined, and the abdomen tympanitic.

TREATMENT.—I ordered an enema, which was given, and it afforded the patient much relief; I also gave Acon. 0, and Bry. 0, in solution, for the first twenty-four hours, when I found the tenderness had not extended; but the pulse remained quick and full. I now (May 30th) gave Verat.-vir. 0, and Bry. 0; and on May 31 found the fullness of the pulse reduced; tenderness upon pressure less; almost an entire suppression of flow of milk. I now gave Puls. 0, and Bry. 0, with a powder night and morning of Merc.-sol. for the next twenty-four hours. The discharge from the uterus looks more natural, and there is a scanty flow of milk.

June 1.—Miss D. is improving; but the tongue remains much coated, and the pulse is weak. I now gave her Bry. 0, and Nux 0, once in two hours in solution, in alternation; and also three powders a day of the first trituration of Quinine-sulph.

June 3.—Much improved; tongue cleaning. Continued the same treatment.

June 5.—Improving finely;—continued the same remedies.

June 7.—I found that upon the evening of the 5th, she had something passed down from the uterus into the vagina, which her mother removed and saved for me to examine. Upon examining it I found it to be the entire *mucous membrane* of the enlarged uterus, with its walls very much thickened, of a muco-fibrous appearance. The size of it, from the cervix to the fundus, was over five inches, across the fundus about three inches, at the cervix about two inches, with an orifice the size of a half dollar; the walls of the membrane were from one-eighth to one-quarter inch in thickness, and the shape of an enlarged uterus, with small opening at the entrance of the fallopian tubes. The patient was now feeling very comfortable, with no pain worthy of note upon pressure, and the uterus contracted down, so as not to be easily felt through the walls of the abdomen. She now had a free flow of pus from the vagina, and was weak. I now gave her Ars. 2, three times a day, and Secale 0, and Nux 0, every two hours in alternation; also used a simple injection for cleansing the vagina.

June 9.—Doing well; continued the Ars. and Nux as the discharge of pus was decreasing.

June 11.—Still improving; continued the treatment; the discharge still less.

June 14.—Much improved; a slight discharge continues.

June 18.—She feels quite well, except that she is weak. Gave her the Quinine powders for a few days.

June 25.—Called and found her feeling quite well. This patient has since had a broken breast, which was not very severe; she has also had some leucorrhœa, which was relieved by the use of Kreasotum.

This was a case which was not free from danger, and still there was not an unpleasant symptom occurring during the treatment. Much reliance was placed upon Bryonia for the febrile condition of the patient, and also for the peritoneal inflammation.

General Record of Medical Science.

The Circulation of the Blood.

We have received a communication on this subject from O. A. Woodbury, M.D., of Nashua, N. H., in which he refers to a former article, published in *The Homœopathic Advocate*, Keene, N. H., (Vol. I., pp. 65 to 83). Dr. Woodbury has for several years given particular attention to this branch of physiology, and we will permit him to state his views as we receive them. He says: "From the commencement of my study of physiology, I had been impressed with the Harveian theory of the circulation. The idea of an engine of forty or sixty horse-power working in the left side of the chest, without the least shock or disturbance, whereby its presence was indicated, had always been to my mind a mechanical absurdity. In the language of Dr. Arnott, "the heart was the rugged anomaly in the laws of fitness in mechanics." The more I strove to reconcile the old theory with the known laws of mechanics, the more everything became involved in difficulty and absurdity. After several years' study my mind settled down on a theory satisfactory to itself, and one entirely original, as at that time I did not know that any doubts were entertained by any one of the truth of the old theory.

The February number of the *United States Journal of Homœopathy*, for 1861, contained an exposition of the modern theory of the circulation, by the authoress, Mrs. Willard. It gave me much pleasure to know that I was not alone in doubting the truth of the old theory. Although Mrs. Willard's theory did not accord with my own views, I hailed it with joy, as opening the way for further investigation of this important subject.

After referring to Mrs. Willard's theory of the circulation, as set forth by her in the *United States Journal of Homœopathy*, February, 1861, he says:

"There is one point where my theory coincides with Mrs. Willards: she makes the heart the regulator of the circulation. In my article almost the same words are used as in hers:—in Mrs.

Willard's theory the motive power is steam, in mine it is electricity; she makes the lungs the only point where heat is generated, whereas it is generated alike in the capillaries of the lungs and in the general capillary system. This is the point where Dr. Chas. A. Lee assails her theory. With all deference to my respected teacher, Dr. Lee, also an apology to Mrs. Willard, let me beg leave to differ from both, as my article in the *Advocate* will show. I did so, and though that article was not designed to contain the new theory of the circulation, yet my mind was so full of it that it crops out throughout the article. The communication was published in the August and September numbers of the *Advocate*.

The *mind* is the power which produces in the human body, not only the *intellectual* and *moral*, but also the vital phenomena. As the Almighty Mind produces all the wondrous and mysterious workings throughout the material universe, from the insensible growth of vegetation to the earthquake's shock, and thence onward to the revolution of distant worlds, from the silent ripple on the bosom of the inland lake to the majestic soaring of old ocean's mightiest billows, all in accordance with its own inherent impressions of love, mercy, justice, goodness, wisdom, and truth, so does the human mind produce in its own little universe, the body, all its varied phenomena,—from the lowest action of vitality to the most powerful physical motions, and thence upward to the highest grade of intellectual and moral phenomena,—acting in accordance with impressions which it receives of conditions and agents within and without the body.

The mind produces all the varied phenomena of the body, through the medium of the most refined of all material agents, the natural element of the universe, the medium which fills all space, the medium through which the Almighty Mind called the universe into being, and through which his power is ever felt through all its atoms, the medium through which reciprocal communion is held between the Almighty and human minds, and through which one human mind acts upon another. It matters not by what name we call it, whether it be the nervous fluid, electricity, or the vital principle. All recognize it, under one name or another. It is the connecting link which unites the spiritual and material worlds,—the mind with the body. We know nothing of it, or of the spiritual power working through it, but by the phenomena exhibited without, and consciousness within. These are constantly within and around us, and demand the constant study of all, especially of those who would know when they deviate from their natural healthy course, and how and by what means to restore them, for it is in this medium that all disease originates, and through this subsequently effects the grosser departments of the system. The organization through which this medium of spiritual or dynamic power pervades the body in all its atoms is the nervous matter of the system. The brain is its great receptacle, the sensory nerves the organization through which the mind or spiritual power receives impressions or is acted upon, and the nerves of motion that through which it responds to those impressions, or reacts. The mind or spiritual power is a unity, but three-fold in its functions,—viz: the intellectual, moral, and vital. Each of these is performed through a distinct portion of the nervous organization. The brain consists of two distinct portions, called the cerebrum or upper, and the cerebellum or lower brain; each of these is again subdivided by a septum into two lateral portions, corresponding to the partial double organization of the body. The cerebrum is the organization through which the mind manifests its intellectual and moral phenomena; the cerebellum that through which it produces all the vital operations of the body. Each distinct intellectual and moral act of the mind is performed through a specific portion of the cerebrum, while each distinct vital operation is performed through a specific portion of the cerebellum and ganglionic system. Some of the vital, as well as the intellectual and moral operations of the mind, are under the control of the will, or voluntary, while others are independent of the will faculty, or are involuntary. The mind or spiritual power, acting through the nervous or electrical medium and nervous organization, constitutes the highest department of our being, and may well be called the *inner man*. All other organizations and parts of the body are primarily dependent upon it, and subservient to it. We may talk of the *contractility*, elasticity, irritability, excitability, &c., &c., of the different tissues of the body, or of the vital power of the heart, lungs, stomach, and all its various organs, as so many distinct principles; but it is like referring the different shadows cast by different objects, by their intercèpting the rays emanating from the same sun to as many *different* suns. These phenomena are all the result of the same power, acting through the same general medium,—viz.: the nervous, electrical, or vital principle, and nervous organization. If the pneumogastric nerve be divided above where the branches are given off, which go to form the pulmonic, cardiac, and stomachic plexuses, a sheep-skin bag might as well be substituted for the stomach, a pair of bellows for the lungs, a gutta-percha foot-ball for the heart.—The vital power of those organs would at once cease, showing conclusively their dependence upon a power communicated through the nervous organization. It may be said that this is universally acknowledged; we reply that it *is* acknowledged by the medical world generally in the same spirit that the servant said to his master: "I go, sir; but went not." It is assented to only when the pressure of experimental proof is so great as to literally squeeze the assent out of them. It is diametrically opposed to the theory of the material nature of disease, and strikes death to the medical practice founded upon that theory.

Having stated the general principle of vital action, and the medium, and organization, through which it is communicated to every part, we will descend one step in the scale of our animal organization and study the office of the lower organs, in the economy of the system.—The human body is composed of the essential elements of the material universe, variously and mysteriously combined. This body is necessary to protect, and as a medium through which may be manifested, the *mind*, or spiritual power within. This spiritual power is, by its workings, constantly exhausting the elementary principle through which it primarily acts, and disintegrating the grosser combinations which compose the organs and tissues of the body. Hence is demanded a constant supply, not only during the period of growth, but all subsequent periods of life. Accordingly we find a second circulatory medium, adapted to the end to be accomplished. This second circulatory medium and organization is analagous to the higher.—The heart corresponds to the brain, the arteries to the nerves of motion, the veins to the nerves of sensation, and the blood to the nervous, electrical or vital principle. The one conveys the spiritual impulses of the mind, to every atom of the body, and carries back the impressions of external agents, and of internal conditions. The other conveys the gross materials, which are to be combined and assimilated, to form the different parts of the body, according to the laws of elective affinity, and carries back all rejected matter, together with the product of the disintegratory process, to be eliminated by the organs designed for that work.—The organization through which the blood is supplied with all its grosser principles, is the stomach and alimentary canal. The impression of an internal condition, which we call hunger, is made upon the sensory nerves of that organ, and through those nerves conveyed to the mind; the mind or dynamic power of the system, reacts upon that impression, and the result of that reaction is that the stomach is supplied with that which is to replenish the system. If the demand is not supplied, this action and reaction continues until the medium through which the mind is acted upon, and reacts, is exhausted, its union with the body is severed, and death is the result.

When food is taken into the stomach, a new impression is made upon the nerves of sensation, the vital power of the mind reacts upon that impression, and the process of digestion is commenced as the result of that reaction. After the process of digestion is completed, the absorbents and lacteal vessels commence their work, (in accordance with this same law of action and reaction,) of absorbing and conveying this incipient blood to the thoracic duct, and thence up to the left subclavian vein, where it is poured into the general sanguinary circulation. In order that the gross matter of which our bodies are composed, may be conveyed to the minute capillary vessels, in which the process of assimilation is performed, it is necessary that it should be held in extremely attenuated solution; hence the impression of the internal condition called thirst, the reaction upon which results in the supply of the necessary quantity of fluid to meet this demand, or death is the result, as in the former case. After the liquid has performed the office of a vehicle, for the conveyance of the solid matter of the system, it is gradually eliminated by the proper organs.

The blood is supplied through the stomach, with all the solid materials which are to enter into the composition of the body; but until it passes through the lungs, it is deficient in the highest elementary principle, which links mind and matter, viz.: the nervous or vital fluid. To supply this principle to the blood, is the great functional office of the lungs, while at the same time it assists in another important work, viz.: the production of animal heat, as we shall see in due time. That the circulation of the blood, in common with every other vital action of the body, is a mental phenomena, produced through the electrical or nervous circulatory medium, and nervous organization, and in accordance with the law, common to all mental phenomena, is shown by facts of common occurrence, addressing themselves to the senses of every observing person. If the nerves of a limb or organ be divided or compressed so as to prevent the flow of the nervous principle to that part, the blood ceases to flow there, although the heart and blood vessels remain in the normal condition. It is a long observed fact, that mental emotions effect the normal state of the sanguinous circulation, but how we are left to conjecture. The face is blanched by the emotion of fear, while shame produces the inflammatory blush. A fit of passion will often affect the action of the liver, altering and increasing its secretions, producing the so-called bilious fever; fear or dread will act upon the kidneys more powerfully than any diuretic in the materia medica. The sight or thought even of some delicious viands, will excite the action of the salivary glands, quicker and more powerfully than any siliagogue. The sight or thought of a nauseous dose, will produce nausea, and often vomiting, the sight of blood, faintness, &c., &c.

Every physician knows that the arterial pulsations cannot be depended upon as a symptom of disease, immediately on entering a sick room, especially if the physician be a stranger and the patient of an excitable temperament. Why is this? Simply because the sight of a strange face, anxiety, perhaps, respecting his decision, as to the nature and gravity of the disease, dread of the nauseous doses anticipated, and where a little lack of confidence, perhaps, in his ability, have produced a hurried and agitated condition of the nervous currents of the system. The sanguinary, being governed by, and dependent upon them, will be hurried and agitated also. It may be asked: If the blood is carried the round of the circulation by the electrical or nervous currents, what is the office of the heart in the economy of the system? We answer—it is a receiving and emitting reservoir, designed to regulate the flow of blood to and from the lungs. The idea that the heart is a muscular forcing pump, with power sufficient to force the blood into every minute capillary vessel of the system, is too gross to be weighed in the balance of common sense.

One terminus of the sanguineous circulation, is the capillary vessels of the lungs, the other the general capillary system. At these two points the processes of nutrition and reparation are carried on, as also the replenishing of the nervous system, and the production of animal heat, as the natural result of these processes. It is a well known fact, that the blood, in order to subserve the purposes of life, must pass through the lungs, and that it then undergoes an important change. The question arises, why must it pass through the lungs, and what is the change which it there undergoes?—We are told by physiological writers generally, that it is to part with its carbon, and to absorb oxygen from the air inhaled, that a part of the oxygen unites with the carbon in the blood and is expelled, while the remainder unites chemically with the blood, or the iron contained in it, thereby producing heat and conveying it to all parts of the system. The first part of this theory is true, while the second is not only unsustained, but disproved by facts and experiment. That oxygen plays an important part in purifying the blood by carrying off its carbon, is true. The office which it performs is substantially this: it is the vehicle which conveys the nervous medium to the blood, and the carbon from it. Experiment proves that not one particle of oxygen is retained in the blood, and that the nervous principle which it conveys, and which alone is retained, is electricity.

Sir H. Davy, proved by experiment, that oxygen gas owed its elasticity to the electricity with which it is combined, and that the air which has lost its elasticity is unfit to support life. Hence the respirability of oxygen is dependent upon its elasticity.

"About ten cubic inches of oxygen are taken into a pair of lungs of medium size, at every inspiration; of which only one-eighth disappears, being converted into carbonic-acid gas and watery vapor, by uniting with the carbon and hydrogen of the blood. But the whole of the air respired is unfitted to support life, therefore the oxygen must have lost that principle upon which its power of supporting life depends, viz.: electricity.—Hence the conclusion, that while the oxygen is expelled from the lungs, the electric principle which it conveyed is retained by the blood. It is well known that carbon is an essential element in the system, and it is also known, that if it be retained in the blood, is destructive to life. Now what is its office?—Evidently the production of animal heat. This is shown by the fact, that in cold climates the system demands enormous quantities of carbonaceous matter. The Esquimaux will consume several gallons of train oil daily. For the same reason, in temperate climates fatty meats that are rejected in summer, in the winter are demanded by the system, and relished by the appetite. This carbon when it enters the system, and passes into the blood, is in combination with other substances, and by the process of nutrition, which takes place in the general capillary system it is set free. The nutritious matter with which it is combined, is retained in the capillary blood vessels to replenish the wastes of the solids of the body, while the electrical principle is given up to the capillary nerves of sensation, and through them conducted to the electrical reservoir, the brain. The blood thus deprived of the vital principle, and loaded with free carbon, is brought back to the lungs, to part with one, and to receive the other. Here we see two chemical changes constantly going on, one in the capillaries of the lungs, the other in the general capillary system. Chemical action is always attended with the evolution of heat, and that too by rendering active, latent electricity. Let us now inquire into the nature of chemical action, and how far the matter of our bodies is subject to its law, the point where it is superceded by the vital power, and the distinction between it and animal vitality.

Chemical action involves the idea of motion. Inertia is the natural state of matter. Therefore chemical action is a manifestation of mental or spiritual power. It is the action of the Almighty Mind, operating through the electrical medium, arranging, combining, and organizing the ultimate particles of matter, into all the diversity of forms which we behold.

Chemical action is but another name for the law of electrical attraction and repulsion.

We are now prepared to trace its action in the changes which take place in the lungs and general capillaries. The oxygen enters positively charged with electricity, the blood enters them loaded with carbon, and in a negative electrical state. Now according to the law of electrical attraction, what is the result?—why that the most negative principle of the blood, carbon, is united with an equivalent proportion of the positive oxygen, which by experiment is found to be one-eighth of the quantity inspired, and the free electricity of that one-eighth becomes latent in holding the particles of this compound together, while the free electricity of the remaining seven-eighths passes into the blood, to replenish the nervous system. In the general capillary system, another similar change takes place. The blood is sent out from the lungs positively charged, and its nutritious matter combined with carbon, when it arrives at the capillary vessels, the free electricity of the blood, is attracted by the negative capillary nerves, and carried to replenish the great electrical reservoir, while the negative matter of the organs and tissues attracts the positive matter of the blood, and the latent electricity which unites the carbon with it, passes to unite the new combinations and thus the carbon is left free. It is the passing of electricity from a free to a latent state, and vice versa, at these two points, which produces animal heat, and it is this attractive and repellent force, under the controlling and superintending power of the mind, that arranges the heterogeneous atoms of matter in the blood to form the different organs and tissues of the body. Where the necessary attractive conditions exist, viz.: unlike electrical states, mutual attraction takes place, and a symmetrical organization is the result, proportionate to the nervous organization through which the mind performs its vital and organizing functions. When matter enters the body, it is subject to the natural law of chemical or electrical affinity; but as its natural elasticity becomes gradually assimilated to the electrical currents of the body, and receives the impulses of the vitalizing and organizing power of the mind, the natural affinities gradually give place to this power. When at last it has become a part of the organized tissues, its subjection to the natural laws of chemical action ceases, and is wholly superceded by the controlling power of the mind, when the mind ceases to preside over it, the natural chemical laws again resume their power. Chemical affinity is the workingof the Almighty Mind among the atoms of matter, arranging, combining and organizing them into all the various forms around us in the universe. Vitality is the working of the human mind, arranging, combining and organizing the atoms of matter, in the miniature universe over which God has given it control. If matter gets into the blood, which finds no attractive points in any of the organs or tissues of the body, it is repelled, and expelled by another series of organs, which we will now proceed to notice. The office of these organs is to take from the blood, matter which having subserved its purposes, and is no longer required, and which if retained in the system, would produce disease and death. We have seen that the lungs perform this office, but as a secondary, not a primary function. The first organ to be noticed in this class, as being more nearly allied to the class above it, by the assistance which it renders to the digestive apparatus proper, while performing its own appropriate function, is the liver. Its office is to take out of the blood a saponaceous compound called bile, which if retained, causes serious disturbance.—But this secretion is made to observe a very important interest in the economy of the system; by mixing with the aliment after it has passed out of the stomach, it aids in completing the process of digestion commenced in the stomach, and that too while making its exit from the body, as an enemy to and disturber of its healthy action. Here we have a beautiful illustration of nature's economy. The kidneys are organs of this class, as before observed, the liquid part of the blood, is only a medium through which the solids are conveyed, having subserved this purpose, it is no longer wanted, and is drawn off by the kidneys, principally holding in solution those ingredients which have been rejected by all the different organs and tissues, and if retained would produce disease.

In general terms we say that the functions of organic life are carried on independent of the will, or intellectual power of the mind; but there is a general dependence of one part upon another throughout the whole system.

The dependence of the organizing and vitalizing power upon the higher departments of the mind—the will and intellect—extends no farther than the supply of material; after this supply is made, the will has nothing to do with the organizing operation.

For example, the system calls for solid matter to replenish its wastes, or for liquid to hold it in solution; but it calls in vain upon the organizing or vitalizing power of the mind, unless the will and intellect lend their aid. But in the highest department of the body—that of which it demands a constant supply, and without which the mind cannot long retain its connection with the body—this dependence does not exist; the matter is not left in such a precarious state, the supply is always at hand, and we must receive it, whether we will or not. Who does not perceive the wisdom and benevolence of the great Architect of our bodies and minds, in thus cutting off this dependence where it would result in mischief, and establishing it where it would be beneficial in calling into action powers which otherwise might be dormant, and to stimulate, yea more, force us to that exercise so necessary to the health of the system?

THE law by which the practice of medicine is regulated in Britain was passed in 1858. It requires only "that persons claiming its advantages be registered, which may be done by all practitioners who have British diplomas, and by all who, having foreign ones, can prove that they have been examined for them at the college or university issuing them." The *Homœopathic Observer* says:

> "It is satisfactory to observe, that in the midst of conflicting systems of medicine, and the divisions consequent upon them, this act is thoroughly unsectarian. All persons having the requisite qualifications are registered without demur, whatever be their mode of practice. Nay, more; the act specifically provides that no person shall be struck off the register for adopting any theory, and no examining board shall require a promise from a candidate that he will adopt or refrain from adopting any theory in medicine or surgery."

The question has been raised in regard to the "right of homœopathists to present themselves for examination for diplomas or degrees before examiners who are hostile to homœopathy, and who would reject the candidates if they suspected them of entertaining such opinions." To this it is answered: "The various universities, colleges, and halls have privileges bestowed upon them by charters and acts of parliament, empowering them to require a certain course of study, and after that to examine the student as to his proficiency in his studies, and to ascertain if he has obtained that minimum amount of knowledge of his profession without which it would not be safe to license him to practice it. In not one of these charters or acts is the student required to abstain from studying, and if he approve of practicing any mode of treatment not generally known or recognized. And by none of them is he prevented from departing from the theories or modes of treatment generally practiced at the time such charters or acts of parliament were conferred. If this had been so, the physician of to-day might have been charging the late epidemic diphtheria in true astrological fashion to some planetary influence; and prescribing the liver of a strangled fox for some form of dropsy, as was done when the college of physicians obtained its charter, and for some time afterwards. Or, to come down to more recent times, the candidate of to-day tells his examiners he would not bleed in pneumonia, and would not give beyond a quarter of a grain of Tartar-emetic for a dose; would not bleed his patient in rheumatism; and if pericarditis supervened, would not administer Mercury,—which answers are now satisfactory, although twenty years ago would certainly have secured his rejection.

"Any pledge, such as we are now considering, required from candidates for examination would have the effect, if carried out, of stereotyping the practice of medicine, and effectually stopping its development. This is so patent in the present day, that the college of physicians of Ireland, through Dr. Smith, its representative, to the medical council on the 16th of May last, repudiated a declaration formerly required from candidates for its license, to the effect that they "engage not to practice any system or method so-called for the cure or alleviation of disease, of which the college has disapproved." Dr. Smith explained, that the declaration complained of was of very old date; that the college had never expressed any opinion on any theory of medicine, and that therefore it never did impose any restraint on the practice of medicine by any candidate; and moreover, that the declaration referred to does not exist in the present code of by-laws.*

The duties of the medical corporations with respect to candidates for their diplomas are stated by the Medical Council to be "to secure the possession, by persons obtaining such qualifications, of the requisite knowledge and skill for the efficient practice of their professions;" so that if the candidate is found possessed of the requisite knowledge and skill to efficiently practice his profession, as the examiners consider best, he is entitled to his diploma; and since that diploma declares him capable of practicing in accordance with the recognized methods of the day, he may surely be considered capable of judging of the value of other systems of treatment, which may be presented to him.

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* Minutes of Meeting of the General Medical Council, May 16, 1862.

"If, after making himself acquainted with a new system, he ultimately adopts it in his practice, there can be no fraud on the college from which he received his qualification. He *then* satisfied its examiners that he had sufficient knowledge to practice his profession; and if he is in possession of MORE *than this*, and is determined to treat his patients by a method which he supposed *better*, these circumstances surely do not disqualify him,—for he has still the requisite "knowledge and skill" to treat them after the *worse* fashion, as he considers it,—and also after the *better* one which he practices."

Frozen Parts.—Frost-Bites.—Death by Freezing.

A LATE number of the *British American Journal* contains a good paper on this subject, read before the New-York Medico-Chirurgical College, December, 1860, by R. Nelson, M.D., of New-York. We abridge it to bring it within our assigned limits:

"*What takes Place when a Part Freezes.*—The cold air at first excites a biting pain; increased redness from afflux of blood, invited by the pain; a while longer the pain diminishes, and the redness lessens,—nearly disappears; all at once a sharp sting seems to ring through the part, and as suddenly the pain ceases:—the part is frozen, is quite white—bloodless; innervation, circulation, and life have ceased in the part. Should the exposure continue, the freezing will extend, and the pain at the frozen limit will recede farther and deeper. This is the process of freezing an exposed part, as an ear. In a covered part, as the fingers and toes, the pain is less acute; there is rarely any preceding redness, nor is the moment announced by the sudden sting, as felt when it is an exposed part. When long continued, not only the soft parts, but also the bone become involved. All these freezings necessarily proceed from without inwardly, and the thawing or recovery of the part ought to follow the reverse order, else destruction will ensue. The particles first frozen must be the last thawed; for, should the surface be thawed, a frozen stratum will remain between it and the deep living structure, cutting off all communication of innervation, circulation, and life from below, leaving this imprudently thawed part isolated, and subject to the laws of dead matter, already interfered with by the chemical and vesicular alteration which freezing induces. Therefore the thawing must take place slowly from *within*,—each particle, as it thaws, receiving such innervation as it is susceptible of—such amount of blood as the injured vessels will admit, particle by particle,—and a dose of life from the nearest living atoms.

"TREATMENT. *Application of Snow.*—It is common to advise *rubbing* the part with snow; but it is an error to suppose that rubbing will set the blood in motion. A frozen part is solidified: the blood which it usually contains is now absent, and if present, it could not be made to circulate until thawed; the fluids that give pliancy and compressibility are frozen into minute crystals, more or less approximated. In this state bending or compressing (the effect of rubbing) will produce innumerable small fractures in the tissue, which, on becoming thawed, will leave as many lesions, added to the one created by simple congelation; the pressing and kneading of friction will only cause mechanical interstitial damages.

"*Temperature of the Snow.*—Frost-bites can scarcely happen at a less temperature than zero, or 30° to 25° below the freezing point, and the snow at such a time must be at a temperature equally low. The application of *such* snow cannot contribute caloric to thaw the part; but must abstract caloric from it, thus keeping it frozen, or freezing it more deeply. It is therefore evident, that the frozen member can only be saved by applying such a degree of cold as will not increase the freezing, and at the same time prevent it from thawing until it is reached by the natural thawing from within outwardly. When the weather is very cold the snow or ice will be nearly the same low temperature,—10°, 20°, or 30° below zero—Fahrenheit. Such cold snow will freeze the part more than it is already. Take therefore a few handfuls of snow, and bring it to the temperature of 32° above zero, by putting it in a basin of water. When there is no snow or ice a quantity of frozen earth can be substituted. The water will thus be brought to 32°—the exact point to permit slow thawing from *within*. If the fingers or toes be frozen, immerse them in a basin of this slushy snow, ice, or mud water; if it be an ear, nose, or cheek, apply this water by means of a napkin, frequently dipping it, so as to keep it at this barely freezing (or thawing) temperature, until color and softness return to the part. After this use water less cold, and thus gradually diminish the temperature, and keep down the inflammatory congestion that is likely to follow. While this slow process of thawing is going on, avoid all rubbing and kneading the frozen parts. When the part has thawed, and is not dead, the epidermis will often blister like a scab; prick these blebs as they form, and dress with *basilicon* rather than with cerates, and exclude the air and light, since these increase the inflammatory state. When the congelation has penetrated deep, the part will slough, however judiciously it may have been thawed. Should the freezing have reached a bone, as a phalanx, even slightly, it will never recover.

"*Cases of Freezing, furnished by Dr. Nelson.*—A grocer in a very cold climate sent two clerks to tap a puncheon of rum, with others piled up in his yard. The hole they bored was too large, and while one ran in the house for a suitable cock, the other thrust his thumb into the hole to stop it until his companion returned. In a minute or two, on withdrawing his thumb, he found it frozen, white, and senseless. The bone of the first part of the second phalanx was frozen, and ultimately lost, for a frozen bone *never* recovers.

There is a common opinion, that alcohol, by not freezing itself, will keep everything in contact with it from freezing. The newspapers, in giving the account of the great fire in New-York, December 16th, 1835, say that "*barrels of brandy and other spirits were kept beside the engines, and emptied into the boxes, to keep them from freezing. The firemen were compelled to put brandy in their boots, to keep their feet from freezing.*" (*New-York Herald*, Dec. 30, 1859.) It is no doubt true, that "brandy and other spirits" were extensively tried, both externally and internally, on the above occasion; but it is not true that they ensure everything from freezing that may be immersed in them. Dr. Nelson gives the following

"*Experiment.*—Fill a flask with spirit, say whiskey, and place it in the air, —the thermometer at 10° or 20° below zero, Fahrenheit; next fill two phials with water, well stopped; hang one phial in the air, and one in the whiskey. This will happen: the water in both will freeze, the one in the air not so soon as the one in the spirit, because the spirit being at the same temperature as the atmosphere, and a denser body, will more quickly than the air absorb the caloric from the phial suspended in it than the atmosphere will from the phial suspended in it. The water in the phials will remain for a time transparent, because liquid; and when cooled below freezing, will suddenly grow milky white, and in an *instant* after, the phials breaking, will become solid ice,—because, up to the moment of freezing, the phials resisted that expansion without which the water could not solidify into ice."

GREAT CHILL FROM FALLING INTO WINTER WATER.—When the traveller, with horse and sleigh, breaks through the ice, the horse when rescued, shakes off the wet, and by five or ten minutes smart driving becomes warm enough to escape injury. The man can only go on as he is, for he has no opportunity to change clothes and would only be the worse for the exposure. "All that need be done is make a quick squeeze or rub down to press the excess of water out of his clothes; that done, like the horse, set to running as briskly as he can, but not ride. This exercise will be difficult at first for a few steps. But, if the weather is cold, the outward clothing will soon stiffen and freeze, and protect that which is under from further cooling by the air, while that next his person will warm from the heat of his body generated by the exercise. If he reached a house in half an hour he will be safer than if he reached one in five minutes; for when a person so immersed is immediately changed in a house, he is heated almost *in vain* from without,—he will in this case continue chilly for several days after, on the least exposure, even in a house; but if warmed from within outwardly by exercise, he may then be changed, and escape further accidents, congestions, &c.

PHYSIOLOGICAL PHENOMENA OF FREEZING TO DEATH.—A man frozen to death cannot describe what his feelings were; but many persons have been on the brink of perishing in this way, and by inquiries made of them and some personal experience, the facts are easily ascertained. "What does take place is: the person is generally fatigued and hungry; commences to cool down in the limbs and surface first; the blood returning thence, diminishes the temperature of the blood with which it mixes, pulse after pulse."—*Proof.* Thirty years since, when it was the fashion to bleed for accidents, the blood from a cold arm and hand escaping from the basilic vein might be found at 50° or less. Who has not experienced, when riding on a cold day, the face very cold. the parotid fluid trickling in cold gushes over his second superior molar tooth? The external blood then is much colder than natural. This constantly returning cold blood tends to reduce the temperature of the whole mass, cooling the interior. The pulse diminishes in volume, becomes thready, almost ceases; listlessness like sleep comes on; insensibility follows; breathing ceases,—death. Then it is that the body freezes in a short time, for the interior, as well as the exterior require but a few degrees more reduction to become solidified."

"A farmer, aged fifty years, was abroad all day when the thermometer was about 10° below zero. All day he ate nothing, and took no exercise to keep him warm. He gradually cooled down, and of course his clothing. He got into his sleigh, sat down in the bottom with his back to his horse—a common practice—and followed in a long line of returning market sleighs on his way home. His horse being under no control, lagged slowly, arresting the progress of those behind; this induced one of the hindmost drivers to run forward to whip up the horse, when he found the sitting man dead, stiff, frozen. This had occurred in less than an hour after starting."

Dr. Nelson says he has written on this subject because he is "not aware of any surgical book that treats on these accidents. There is a *sensation* notice on frost by Baron Larrey, in his account of the great retreat from Moscow. He there deliberately states that the *first part* of these unfortunate fugitives that froze were the eyes! This absurdity I should not notice were it not from the quarter it comes from, and having heard people repeat it. The Baron neglected in his romance to mention how these men managed to keep on the march with frozen eyes. I doubt much whether he once got out of his flying sleigh, well wrapped in robes and furs, in his hurry to escape from white bears, to examine and prescribe for these frozen eyes. But many people take as true all that is said of this hero of broadsword and red-hot iron surgery, who has slain more men than he has saved,—remorselessly tortured with fire more sufferers than he has assuaged,—and by his example and great name led blind followers to imitate and repeat his cruelty and inhumanity. I knew him."

Conservative Surgery.

THE power of the human constitution in a state of health to restore injured parts is greater than surgeons genarally admit. It is known that union by the first intention may be relied upon when large wounds have been inflicted by a sharp-cutting instrument, and that in rare cases something more may be expected. But the following case shows a recuperative power which nature does not often have the opportunity to display. It is reported by Dr. J. Nichols, of London, in the *Lancet*, Oct. 1861: A gentleman, aged more than seventy years, "on going up-stairs, stumbled near the upper step, and, trying to recover himself, fell forward against a wooden flap placed at the drawing-room door, the sharp edge of which came in contact with his nose, first compressing it and then separating it from his face." When the surgeon entered the room he was met by the patient who, holding his handkerchief to his face, said, "Doctor, I have cut my nose off." The daughter brought the separated portion which she had picked up from the floor, covered with grit and dirt. The whole of the fleshy end of the nose, together with the alæ and septum were clean cut away, and the white end of the cartilage exposed. The upper lip was divided transversely throughout its whole extent and hung down over the mouth. For a moment I hesitated what to do, but thinking the separated part would be as good a dressing as any other to the exposed surface, and that the patient's hope (though I had none) of its reunion would give time for him to reconcile himself to its ultimate loss, I determined to readjust it. This was easily enough done. The grit was wiped from it and being carefully replaced, it was retained *in situ* by adhesive straps. The edges of the wound of the lip were brought together, and kept so by similar means. The next day the end of the nose, which had been purposely left exposed, had lost the deep black color that it had when replaced, and bore evident signs of circulation going on in it. There was no discharge from the wound. Next day the appearances were the same. On the third day the dressings were removed, and I was as much astonished as gratified to find that union had taken place throughout the whole extent, and the scar that was left was scarcely perceptible. The lip had also united.

Now the time which had elapsed between separation and the readjustment of the divided parts could not have been less than three-quarters of an hour,—an important fact, the knowledge of which cannot be too widely disseminated.

Gleanings from Foreign Periodicals.

A CURE BY NUX-MOSCHATA. BY DR. KALLENBACH.

Mrs. F——, of delicate constitution, thirty-two years, has suffered with laryngeal symptoms for seven years:—short cough; pressing and burning pains in the throat; weak, hoarse voice, catches cold very easily with aggravation of all symptoms. Sulphur high and rarely repeated cured her. Latterly she was attacked twice in the night with laryngeal spasms, threatening suffocation, relieved in ten to fifteen minutes by a single dose of Canthar. 6, and remained well for a year. Since last February she has suffered with toothache and vomiting of food with debility. Being called in, I find the following symptoms: 1. She looks thin; muscles of the arms lax; features have that suffering expression, so often found in diseases of the stomach. 2. The external skin is *cool, dry—never perspiring,* even when covered with feather-beds; she feels as if all animal heat has vanished. 3. *Sleepy the whole day,* especially when alone; *sleeps soundly the whole night,* and feels more tired in the morning, as when lying down. 4. *Mucous membrane of the nose is always dry;* whereas there is accumulation of phlegm in the throat during the morning. 5. Since eight months daily pains in one grinder, either on the right or left side; pains are boring, *changing often to sudden stitches,* and sometimes so severe, that she runs about the room crying; warm and cold drinks sometimes aggravate, at other times ameliorate; they keep no certain times, but are worst after meals. 6. She eats with appetite, *but a few mouthfuls satisfy her.* 7. Two or three times during the day she feels a kind of turning in the stomach with some nausea; food rises up from the stomach, and she throws up easily about half a tablespoonful; what she throws up are digested remnants of food mixed with tough mucus, of somewhat bitter or sour taste. 8. Courses, which were usually scanty, now more profuse and *of darker color.*

At first appearance, Calc., Nux.-vom., and Natr.-mur. loom up as indicated, but at close examination we learned, that during the toothache she also has *a chalky taste,* and that she suffers sometimes with *spasms of the calves* of the legs before going to sleep. I gave her, therefore, four powders Nux.-mosch. 6, Hahn. scale, which cured her entirely of all her disease.

A PECULIAR DISTURBANCE OF THE MIND AND A PECULIAR REMEDY.
BY DR. BATHMAN.

Ch. B., a wealthy farmer's wife, forty-two years old, always enjoyed good health. During February, 1861, she visited some relations on account of some property left to her and had several quarrels about it. In going home she might have caught some cold, as the weather was wet and stormy. Arrived home, she took no interest any more in her domestic affairs, got careless and silent, and talked nonsense. She did not care to eat or to drink, and her sleep was restless and broken. Three days afterwards, I found her in the following state: Patient very irritable with red face and sparkling eyes; throws herself about in the bed; tears everything from her body; digs round in the bed, as if looking for something, and recognizes nobody. All persons appear to her larger in face and body, the feet longer, so that she took me for a corpulent farmer, and her children for fat dwarfs. Contradiction irritates her, so that she throws everything at anybody. Pulse full, rather hard and quick; skin rather hot and dry; urine dark without sediment; constipation, except when taking Castor-oil; passes fæces and urine in the bed, and digs in them, as also in the menstrual secretion, with which she painted herself all over. Little thirst; no appetite with thickly coated tongue; very little sleep; talks continually nonsense, and only when sharply spoken to, gives sometimes, as if awakening from a heavy dream, a short sensible answer, but relapses gently to her nonsense; very sensitive to noise; on the walls she sees fire, and black men and beasts.

Opium, Bell. and Hyosc. produced only a very slight and passing amelioration, but now appeared also a dirty yellow coloring of the whole body, especially of the face, the regio hepatica was somewhat swollen and tender, for which she received *Merc.-sol.* 6, a small dose every three hours. Already the next day there was great improvement, and after eight days not a vestige of her aberration remained.

MORBI PHYCHICI CURED BY DR. STEPHEN HORNER.

a. *Hebetuso mentis.*—We cite two cases. In one, the disease appeared periodically. Patient took a spree every three months, always followed by an attack of silliness. Great amelioration under Nux.-vom. The second had fixed ideas about salvation, the devil and so forth. Anacardium wrought such improvement, that he soon found pleasure on his work again.

b. *Mania.*—A lady of delicate constitution, three days after confinement was attacked with puerperal mania. She had to be tied to her bed; face sometimes red, at other times pale; steady heat of the head; continual, unquenchable thirst; no appetite; great inquietude; sleeplessness; the breasts empty. Stools and urine passing unconsciously. The terrible rage indicated Stramonium and cold effusions, but it increased rather all her symptoms. The second day she got Belladonna, producing in a few hours perfect ease of mind, and by the next day lactation was fully established. After seven days' treatment she returned perfectly restored to her family.

2. A young boy, eighteen years of age and usually melancholic, was punished by his master for some neglect in his work. He then ran away, tore everything to pieces, crying continually. As long as he cried, he could sometimes be brought to reason; but when that ceased on the the third day, mania came on in the most terrible manner. Cold on the head with Ignatia were without effect. He talked delirious the whole day, head hot; pulse suppressed; eye-lids spasmodically compressed with severe headache. Bellad. cured him entirely in less than a week.

3. A woman became a maniac without a cause. She was known to be a great reader; she spoke irrationally, jumped, danced and sang till she sank down exhausted. All motions were done with the greatest hurry;

patient ate nothing and had no desire for food. Bell. and Crocus were given without relief. On the third day I ordered Stramonium and cold douches. She took this remedy for a month and was dismissed perfectly cured.

4. *Mania in a Farmer, without Provocation.*—It was characteristic in this case, that the patient screamed out every five or ten minutes, as if he would call somebody. The whole house was disturbed by his screaming. He had to be kept tied, as when free his rage knew no bounds. Food and drink he swallowed hastily; no trace of fever. He received Anacardium and was dismissed cured in nineteen days.

SCIRRHUS TREATED BY DR. STEPHEN HORNER.

a. *Scirrhus ventriculi.*—A beggar-woman, forty-eight years old, lost her courses three years ago and has been sick since that time. Continuous vomiting of all food with painful pressure of the stomach. Emaciation; yellow color of the face; eyes sunk in; in the regis stomachica a moveable tumor of the size of an egg, painful to the touch. Great thirst; little appetite; constipation; sleeplessness; the matter vomited has a foul smell and like coffee grounds. Nux.-vom. 6, given for six days did not relieve her. She then received Sulphur, producing not only a daily passage, but also reduced the vomiting, so that she could take soup. But as the sensibility of the stomach was not entirely removed and the vomiting also returned, she received Arsenicum. This stopped the vomiting, the appetite returned, the tumor of the stomach also decreased, so that the patient, although far from being cured, left the institution greatly relieved and satisfied.

b. *Scirrhus uteri.*—It began with different anomalies of menstruation, sometimes she lost too much blood or too much white mucus. At first patient felt a heaviness in the uterus with bearing-down pains, increased by walking or any other motion. The pains are now continuous with nightly aggravations. From the genitals flows a stinking corroding ichor. Uterus is enlarged and sensitive to the touch; great emaciation; pale, ashy face; loss of appetite; obstinate constipation. After a few doses of Nux.-vom., which relieved the bowels and gave her appetite, we had recourse to the Secale-cornutum. First the pains at night decreased, then the sensitiveness; the discharge lost its burning sensation, and the extension of the uterus decreased. A year has passed, and although the painfulness returns sometimes, it is quickly relieved by Secale. Will it last?

c. *Carcinoma faciei.*—Minute doses of Arsenicum were without effect, but Tinct.-fowleri, two drops morning and evening, and increasing it up to eight drops, produced a purification, and then a healing of the ulcers.

HOARSENESS (RAUCEDO). BY DR. GASPARI.

G., twenty years old, of good health, but very irritable and sensitive. Getting cold, she was attacked with hoarseness. There is neither cough, titillation nor pain in the throat. Voice covered, raw, and heavy. Examination shows nothing abnormal in the throat. Tongue clean; appetite good; thirst not increased; all secretions and excretions normal; sleep natural. Merc.-sol. 4, two powders a day cured her in four days. For the nervous irritability she got Ignatia 4, one dose a day. Well since a year.

HÆMOSTATIC POWER OF BALS.-COPAIV. BY DR. CARL MULLER.

I used lately in severe spontaneous epistaxis of small boys, lasting already several days, the Copaiva with quick and happy result. Cutting myself in the hand, bleeding profusely, I wetted a cloth with cold water and about six drops of Copaiv., sixth dilution, and bandaged the finger tightly. Bleeding stopped immediately, although the wound was open and gaping.

PROSOPALGIA CURED BY STANNUM. BY DR. FL. LUSCH.

H., thirty years old, choleric temperament, and of hæmorrhoidal tendencies, suffers since eight weeks with prosopalgia, for which allopathy was tried in vain. Attack *begins at seven,* A.M., *from the right side to the left, increases in strength up to one,* P.M., *and decreases then, so that by four,* P.M., *he is entirely relieved,* able to do any work, till next morning brings a return of the whole procedure. Nux-vom. was of no avail. Stannum, three drops every three hours, cured him perfectly in three days. A similar case was also promptly cured by it.

LEUCORRHŒA CORRODENS, CURED BY RUTA-GRAVEOL. BY DR. MARWEG.

A lady, thirty-three years old, has suffered since two years with a corroding leucorrhœa, which injections of Argent.-nitr. only aggravated. The leucorrhœa was yellow, sometimes thick and slimy, and corrodes her thighs like vitriol. I gave her Puls. in alternation with Phos., and then Puls. alone; but the *status quo* remained the same with this and other remedies. She told me then of a fall she had had, with painfulness in the chest, as if there were a hard knot, and when it disappeared, leucorrhœa set in with involuntary *green* urinating, but of which she was cured long ago. I gave her now Conium 15, on account of the causal moments, which produced the following symptoms: Burning, corroding pains in the thighs; tired feelings: body appears as heavy as lead—clumsy; dizziness; bruised feeling of the bones; blur before the eyes; feeling of prolapsus ani; and she felt as if her whole body was pinched from all sides; the green urine was there again, only the pain in the chest was missing;—she always broke down in walking. Aggravation by rest, even when sitting. The fluor albus thinner, flows more free during motion, but is just as acrid and corroding; and she feels more severe burning of the affected parts, when washing with lukewarm water. She got *Ruta-grav.*, 6, a dose every four hours. Aggravation followed in a few days, necessitating me to interpolate Camphor, one drop, followed in eight days by remarkable alleviation. The week following she received again two drops of Ruta, 3, and her disease was entirely cured by the fifth day. Ten months have passed without any relapse.

PHTHISIS PULMONALIS CURED, BY DR. LOIN IN ANVERS.

A girl, four years old, sick three months, showed the following symptoms: Frequent stubborn cough, with expectoration of muco-pus; inspiration short, expiration increased; percussion shows a clear sound on the apex of the lungs,—a noise in the morning, and a hollow bellowing during the day, and especially in the evening; great emaciation; general paleness, with redness of the cheeks, during the fever; cold sweats at night,—the skin dry, brittle; the muscles tense; pulse small and quick; bloated abdomen, with intractable diarrhœa; capricious appetite,—food is not digested. Calc.-carb. in high potency, and more nourishing diet. Abdominal symptoms all improved in two weeks; but chest symptoms the same. Phos. in high potency. Child improved rapidly, and is now stronger than before her sickness.

LEDUM IN WHOOPING COUGH. BY DR. LEMBKE.

The doctor uses a weak infusion of the herb. In thirty cases, where nothing helped, the Ledum infusion cured without producing headache.

COD-LIVER OIL BY ST. MARTIN.

To make Cod-liver oil more palatable, drink after it half a tumbler of artificial iron water (rusty nails macerated in water); this gives a taste of fresh oysters, observed also during eructations.—*From Hirschel's Clinik and Altschul's Monatsschrift.*

Reviews and Bibliographical Notices.

1. *On the Therapeutic Action of Atomic Doses.* By ARTHUR DE NOE WALKER, M.R.C.S., &c. London and Manchester. 1862. pp. 30.

THE author of this small work published on a former occasion another which was designed to "prove the existence of a therapeutic law, whereby disease is amenable to specific treatment;" and also, "that when a morbid state is either intelligently or casually cured by a specific; such specific exerts its therapeutic dominion over disease in virtue of that law: specification immediately ceasing the moment a therapeutic agent ceases to act in subordination to that law."

He now brings forward a practical application of the same principles. He proposes "to treat of that particular state in which therapeutic substances not only develop *all* their specific qualities, but of that *material condition* which alone enables us to use them, in order to make that law efficient in the treatment of disease."

This argument, though confined within a few pages, is certainly conclusive in proving "that *integrant molecular* or *atomic doses* do act most powerfully on the healthy human frame; that if they act on the healthy organs and *disease* them, they may, as they unquestionably do, act on morbid states also; and that they act not only in a very *small dose*, but in an *attenuated* state, and exert a curative action on disease, although it does so *on condition*."

That this condition "is a *specific* and invariable one," it is the author's chief purpose to explain. "If a very attenuated dose of *Aconite* or of *oxide of Zinc*, *or any* other remedial agent is administered to a person *in health*, in most cases no effect will ensue; because, in the first place, the dose is too small to affect the healthy organs to any appreciable extent; and in the second place, that *particular morbid state* is absent, on which *Aconite or Oxide of Zinc can act;* for the same reason that vaccine matter will fail to exert its particular specific action on a person in whom a particular organic element, capable of developing small-pox, has been neutralized by a previous attack of that disease, or by a previous and effectual vaccination. But if an attenuated dose of Aconite or Oxide of Zinc is administered to a person laboring under a morbid state, manifesting itself by the presence of symptoms similar to those produced by those medicines in the *healthy* body, the effects of one or two atomic doses will soon be felt by the patient, and recognized by the medical attendant. Several doses of *oxide of Zinc* given to a person in health, even in the gross quantities administered by the schoolmen, will *very often* produce no effect; but *one or two* doses, if *unmixed and properly prepared*, given to a person laboring under *chronic alcoholic intoxication*, will not only affect him in a marked way, but will often temporarily aggravate the symptoms of the disease,—a *certain* proof that the therapeutic agent used is the specific for the case under treatment. (*Dr. Marcet on Chronic Alcoholization.*)

But if the *Oxide of Zinc* is administered to a patient whose symptoms have *no* analogy with those produced by the Oxide on the healthy body, it will prove absolutely inert. I have elsewhere shown why the best specifics must fail in the hands of school men. But if they cared to study and learn the action of remedial agents on the healthy body, they would prove that every drug, like every morbific agent, has its own specific action in producing particular symptoms and particular morbid states, by acting in a specific way on a particular part or parts of the organism. And it is equally true that, unless a remedial agent, morbific or contagious matter does act on the ultimate histological elements of the organism, none of them, if *at all*, will develop *all* their intrinsic and peculiar specific qualities and effects."

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2. *The Medical Record of Australia.* A Journal of Australian, European, and American Medicine, Surgery, Midwifery, Physiology, Medical Jurisprudence, Chemistry, Materia Medica, and Pharmacy. Semi-monthly. Melbourne, Australia.

In the time of Charles the Second, not quite two hundred years ago, an English poet obtained the title of Poet Laureate by regular patent under the King's privy seal, with a salary of £100 and a tierce of wine out of the royal cellar, for writing a poem in praise of England's merriest monarch. The best part of the poem was given as a prophecy of the future greatness of the nation in commerce and discoveries till the paths of the ocean should become as familiar as the land:

> "Then we upon our globe's last verge shall go,
> And view the ocean leaning on the sky:
> From thence our rolling neighbors we shall know,
> And on the lunar world securely pry."

We live in a time in which all the prophecies given by this poet have long been realized. It is a long time now since the adventurous navigator, passing round the known continents to "our globe's last verge" to "view the ocean leaning on the sky," became acquainted with the fifth great continent, now called Australia. We also live to see the fulfilment of another prophecy uttered before our time. When England was beginning to colonize Australia, an artist made some medallions of clay brought from Sydney Cove, representing "hope encouraging art and labor under the influence of peace;" and a poet, looking forward to coming years, ventured

> "To record
> Time's opening scenes, and truth's prophetic word."

He described the future of the infant colony in rising cities, broad streets, stately walls, the circus and the crescent; the bright canals and solid roads; the glittering streams, bordered with villas, farms, and orchards, and the

> "Tall spires and dome-capt towers ascend,
> And piers and quays their massive structures blend;
> While with each breeze approaching vessels glide,
> And northern treasures dance on every tide."

The visions of the last century have all been surpassed by the realities of the present, and the cities of Australia have outgrown the measure assigned them by the seers of a former age. Twenty years ago it was said that they had all the good and the evil that belonged to modern civilization, except small-pox and scarlatina. "The Medical Record of Australia" shows the new British empire under the southern cross, amply supplied with the diseases of all lands and physicians of all schools. The editor seems to have studied everything but homœopathy, and we are happy to see that he is in a fair way to learn that. We give him credit for a high degree of candor and fairness, as shown by his admission of this subject into his columns. He will find that all his questions can be answered, and his difficulties explained by his able correspondent, Dr. Berigny, of Melbourne, who has already published a work of 60 pages on the subject. The editor ventures on dangerous ground;—we have known no instance of a man of capacity undertaking to "write down" homœopathy, who did not become a convert to its truth, if he continued the investigation in good faith. We have no fears of such discussions. "The profession" will be sure to learn something, and the public will learn more.

3. *The Common Sense of Homœopathy.* Annual Address, delivered before the Massachusetts Homœopathic Medical Society, April 10, 1861. By J. T. Talbot, M.D., of Boston. pp. 26. Boston. 1862.

This address presents several points of importance which deserve attention; though some time has elapsed since its publication, it only recently reached us.

1. The author gives a fair exposition of the old saying that "common sense is rare sense," and shows, that, among the followers of Æsculapius, known as *doctors* or wise men, such different and opposite opinions have been successively adopted and rejected, that it can hardly be claimed for them that they have much to boast of either of "*common* sense" or "rare sense." It would seem that a good share of any other kind of sense would enable its possessors to avoid the innumerable absurdities and false theories that have, one after another, risen and fallen in the path of what is called medical science in her onward march.

Dr. Talbot briefly reviews the progress of medical discovery and shows that, "for 2000 years, physicians had directed their efforts to the discovery of specifics for the different diseases of the organism; and with what result? With one or two exceptions it was a total failure. Crossing and recrossing each other's paths in the bewildering maze of disease, one was sure to erase the footsteps another had made in the right direction." Where the multitude had wandered in a bewildering labyrinth, Theseus alone got hold of the slender thread which could conduct through the darkness. Like him, Hahnemann seized upon the simple *law of cure*, which directed him in his investigations of the specific curative power of drugs. He found that "the action of any drug upon the healthy human system revealed with certainty the symptoms for which that drug was a specific; and, thus guided, he discovered what the whole medical world had been in vain seeking.

In a brief but pointed manner, the author discusses "the principle" of homœopathy; "the manner of ascertaining the power of drugs; the simple medicines; the dose; and the advantages gained, as well as the dangers and evils of other methods avoided."

The condition of both schools of medicine in Massachusetts is set forth in the action of the Medical Society of that state, in the exclusion from its privileges, all who after proving themselves worthy of a place in its ranks, may happen to learn something more than the majority think necessary to know. We are informed that the Massachusetts Medical Society consists of nearly one *thousand members.* At a late session of the Legislature an amendment to its charter was obtained, by which the society is allowed to elect its own members without restriction; at the same time representing that this was not designed to affect any class of physicians, or to interfere with the opinions of any one, but simply to exclude from membership any person of immoral character. One of the first acts of the society after this amended charter was accepted, was the adoption of the following By-law:

"No person shall hereafter be admitted a member of the Society, who professes to cure diseases by Spiritualism, Homœopathy, or Thompsonianism."

This amendment to the By-laws was designed, not to obliterate from the minds of men all memory that such things as Spiritualism and Thompsonianism ever existed, for it is not probable that any member of the Society had any fears of being troubled by either of them. It was merely intended to operate against homœopathists, of whom the number was becoming alarmingly great. It was not passed at any full meeting of the Society, but at a meeting when *only nineteen* of its *many hundreds of members* were present; and when the sixty homœopathists who had a right to vote against it, were ignorant of the design of anybody to propose such amendment. That the members thus to be excluded without a hearing, were well qualified as physicians is proved by their having hitherto been acknowledged by the Society as such. They had not troubled the Society by introducing discordant discussions upon their own favorite doctrines; "but for more than twenty years, with gradually increasing numbers, they have been faithful members of the Society and profession; earnestly searching for every improvement in the art of medicine, and quietly obtaining, in the daily round of practice,—that sphere of the true usefulness of a physician,—new confirmation of the truth of the great law of cure."

But, says Galileo, "the world moves." In Massachusetts "our numbers are rapidly increasing. Twenty-three years ago, there was but one homœopathic physician in New-England. In 1857, a tolerably exact directory contained the names of 120 in Massachusetts alone. Since that time, I have received the additional names of 92 physicians in this state who have adopted our principles and practice. This, with changes and deaths in the original number, makes the increase about *sixty per cent in four years*. The proportional increase is much greater among medical students; many of whom from the well-known prejudices of their professors, do not, while students express their opinions on this subject. The number of patients under homœopathic treatment was never so great as at present; and the number, both of physicians and patients, will continue to increase, and the blessings of homœopathy to extend, if we are but faithful to our duty.

"Let us understand and fully appreciate our position. If this principle of *similia* is indeed a universal law of nature, then do we occupy the true scientific ground in medicine. No longer drifting among diverse and conflicting opinions, where hazardous experiments may occasionally prove a brilliant success, we hold a position where the greatest exactness is required in the practical application of the law. How imperative, then, to bring to our aid a well-balanced mind, fully inducted in all the subsidiary branches of medicine: a correct judgment, which properly applies the law in all its bearings; an accurate and far-seeing perception; earnestness, devotion and love for our profession; and above all, strict honesty and integrity of character; never exaggerating our cures, or claiming too much for our science! Thus, firmly planted on this rock of truth, we may safely wait; and, secure against all the assaults of ridicule, invective, and misrepresentation, rest assured of the ultimate universal adoption of our principles."

4. *Therapeutics of the Day.* In a series of Letters by Dr. Wilhelm Stens, Sanitary Counsellor of his Majesty the King of Prussia, and Physician in ordinary to H. R. H., Prince Albrecht of Prussia. Translated from the German, by HENRY ST. CLAIR MASSIAH. London. Wirthheimer & Co., Circus Place. 1862. Letters I. and II. pp. 34.

So many argumentative works have been written to prove that the practice of homœopathy "is more advantageous to the patient than that of allopathy," that it might appear unnecessary to add to their number; but the translator of the present work believes that a great labor is yet to be performed. "Physicians of the old system, and that part of the public which follows them" will not abandon it, "unless it is clearly shown to them that the *foundations of allopathy are rotten at the core.* The public have a right to be enlightened upon every point which regards health, to know to what treatment they entrust the lives of those dearest to them; and feeling the necessity that this should be carried into effect, I have translated Dr. Stens' work."

The author, in a series of twenty letters, gives a summary of the facts and principles which make up what is called "MEDICAL SCIENCE," and, in direct association with the airy castles which are known as medical, physiological and chemical theories, he reveals the powder-mines and rifle-pits already prepared for a perpetual succession of explosions. He shows that although the physiological and chemical theories are pretty things to talk about, they are not yet sufficiently correct to constitute a true basis for a *successful therapeutic*, and that the collateral branches of medicine "exist not for themselves," but for their bearing on therapeutics, which is "the rich ripe fruit of Medical Science." He shows that the true system of therapeutics is to be found in a new therapeutic law skilfully applied in adopting individual remedies to individual cases of disease. The work is dedicated "to his Imperial Highness *the Archduke John of Austria*, Prince Royal of Hungary, Bohemia, &c.,—Field Marshal of the Austrian army, the high and powerful promoter of homœopathy."

Miscellaneous Items.

Michigan Homœopathic Institute.

A MEETING of the Homœopathic Institute of Michigan was held at Detroit during the last week of September. It was very well attended by the profession, and its sessions, which continued during two days, were of an interesting character. The Secretary, Dr. E. A. Lodge, furnishes the following report for publication.

MINUTES OF A MEETING OF THE MICHIGAN HOMŒOPATHIC INSTITUTE, HELD AT DETROIT ON THURSDAY THE 25TH OF SEPTEMBER, 1862,—THE VICE-PRESIDENT, DR. E. M. HALE, IN THE CHAIR.

The roll of members was called by the secretary.

Minutes of previous meeting read and approved.

The committee appointed to prepare a suitable certificate of membership reported a form which was unanimously adopted, and the secretary instructed to print the same.

On motion, the regular order of business was changed, so as to defer the reception of reports and communications until the next meeting.

An invitation being extended to the homœopathic physicians present, who reside in Michigan, and who are graduates, to unite with the Institute, the following gentlemen signed the constitution and by-laws, and were admitted to membership:—C. J. Hempel, M.D.; L. M. Jones, M.D,; P. H. Hale, M.D.; C. A. Williams, M.D.; A. H. Botsford, M.D.; C. A. Jefferies, M.D.; E. R. Ellis, M.D.; E. H. Drake, M.D.

The Institute then proceeding by ballot to an election of officers for the ensuing year, the following gentlemen were duly elected:

President: C. J. HEMPEL, M.D., of Grand Rapids.
Vice-President: E. M. HALE, M.D., of Jonesville.
Secretary: E. A. LODGE, M.D., of Detroit.
Treasurer: E. H. DRAKE, M.D., of Detroit.

Censors.—E. M. Hale, M.D., of Jonesville; C. J. Hempel, M.D., of Grand Rapids; E. H. Drake, M.D., of Detroit; C. A. Jefferies, M.D., of Lansing; and A. H. Botsford, M.D., of Grand Rapids.

On motion, Dr. E. A. Lodge was appointed a committee on printing.

On motion, it was decided that a meeting of the Board of Censors should be held immediately after the adjournment of the Institute, for the purpose of examining candidates.

On the proposition of Dr. Eldridge, it was resolved to appoint a bureau of provings, which shall report at each annual meeting a drug proving. The following gentlemen were appointed by the chair: Drs. Eldridge, Hempel, Botsford, Williams, Jefferies, Lodge, Albertson, Ellis, and A. Walker.

On motion, the name of the Vice-President, Dr. E. M. Hale, was added to the list of gentlemen composing the Bureau of Provings.

The following physicians were unanimously elected as honorary members: Prof. R. Ludlam, of Chicago; Prof. J. P. Wilson, of Cleveland; Dr. L. Pratt, of Rock Creek, Ill.; Prof. John Ellis, of New-York City.

After an announcement that the annual address would be delivered by Prof. Hempel at Merrill Hall, at 8, P.M., the Institute adjourned until 9, P.M., 26th inst.

AT A MEETING held on Friday the 26th of September, 1862,—the President, C. J. HEMPEL, in the chair.

Communications were received from Doctors A. J. Sawyer, G. W. Bowen, and J. Doy.

A paper entitled "*Homœopathy in its Connection with the Progress of Man*," by J. M. Long, M.D., of Coldwater, was read,—ordered to be mentioned favorably in the proceedings of the Institute, and forwarded to the editors of the NORTH AMERICAN JOURNAL, with a request for publication.

On motion of Dr. Albertson, it was resolved to invite all the homœopathic physicians of Michigan to co-operate in this organization; and that he be empowered to receive the names of members at any time, on the terms of the Constitution and By-Laws.

The Chairman of the Board of Censors reported the names of Dr. Lewis Taylor, and Dr. J. B. Tuttle favorably, and it was resolved to cordially invite them to membership.

On motion of Dr. Hale, it was resolved that the following addition be made to the By-Laws: "The members of the Institute shall be allowed the privilege of voting on any question by proxy or by letter."

F. Finster, M.D.; A. W. Walker, M.D.; A. Walker, M.D.; and Dr. Lewis Taylor signed the Constitution and By-Laws, and were admitted to membership.

The following preamble and resolution was offered by Dr. A. Walker and adopted: Whereas members of the homœopathic school of medicine are debarred appointment as surgeons in the army of the United States by the powers that be,—Resolved, that a memorial be presented to the war department to the effect, that the disability to appointment as surgeons be removed, or that members of the homœopathic school be exempt from liability to draft.

After some conference it was agreed that the memorial should be signed by the president and secretary of the Institute.

Dr. Hall called the attention of the Institute to the propriety of some concerted action in reference to the establishment of a branch of the State University, with one or more professors, where the science of homœopathy shall be taught.

Dr. Finster remarked, that there is already a law establishing a chair of homœopathy in the University, and no new law is necessary; what we want is to see that the law is carried into effect.

Dr. Hale said, that it is the opinion of many learned lawyers, that there would be considerable difficulty in compelling the regents to fill the chair; and that it would be advisable not to attempt to fill the chair at Ann Arbor now, but rather to urge the establishment of a branch of the University at some other place.

Dr. Jefferies gave his views. Passing laws and getting them executed are two very different things. We are not dependent upon the board of regents;—if they continue to neglect their duty, we can obtain our objects without them. We can get a branch of the University, and be in a measure independent. He recommended the formation of a committee, who shall take the matter in charge.

Dr. A. Walker coincided with the views expressed by Dr. Jefferies, and thought that a separate institution would be altogether preferable.

Dr. Jefferies thought, that an appropriation of swamp lands could be obtained from the legislature as an endowment. The homœopathic institution would be a benefit to the people of this state now and for all time. He did not think that that was any accumulation of the University fund; instead of this, the people were taxed some $7,000 per annum beyond the fund, for its support.

On motion of Dr. Jefferies, it was unanimously resolved, that the secretary draw up a petition, and send copies to the homœopathic physicians of this state, praying the legislature to establish a homœopathic branch of the State University, to be endowed by a grant of swamp lands, or by an appropriation of such other public funds as may be available.

On motion of Dr. Hale, it was resolved that the chair appoint a committee of five members of this Institute to attend the next session of the legislature, to aid in carrying out the objects of the foregoing resolution. The chair appointed the following members as the committee: Drs. Jefferies, Botsford, Hill, Hale, and A. Walker.

On motion of Dr. Ellis, the name of the President, Dr. C. J. Hempel, was added to this committee.

Dr. Hale called the attention of the Institute to the great injustice which is done to homœopathie physicians by their exclusion from appointment as army surgeons.

Prof. Ludlam, of Chicago, related several instances where homœopathic physicians had been improperly excluded.

Dr. Pratt, of Illinois, said that the governor of his state had sent a telegram to the war department, asking for permission to employ a certain proportion of homœopathic surgeons, and was told that it could not be granted.

The subject was then deferred until the afternoon session.

Prof. Ludlam delivered a lecture on "*Pathology a Practical Science*," which was received with great attention by all the members present.

On the proposition of Dr. Walker it was unanimously resolved that the thanks of the Institute be presented to Drs. Hempel and Ludlam for their interesting and scientific lectures.

On motion it was resolved that the lecture of Prof. Ludlum be published as a part of the proceedings of the Institute.

Prof. Hempel being requested to furnish a copy of his address for the same purpose, he asked that the Mss. might be left with him, as he designed to publish it in another form.

Dr. L. Pratt, Recording Secretary of the Illinois Homœopathic Medical Association proposed to furnish this body with a number of copies of the transactions of their Society in return for an equal number of the published reports of this Institute, which offer was accepted.

Dr. Pratt then invited the members of this Institute to attend a meeting of their Illinois Association, to be held at Chicago on the third Monday of May next; he hoped that they would attend and participate in their deliberations.

Prof. Ludlam urged the invitation, and remarked that he thought a more complete organization of the physicians of the Northwestern States should be had. Physicians from Illinois, Wisconsin, Michigan and Indiana could unite and form a homœopathic congress, which, instead of presenting as the result of their organization, a volume of 100 pages of transactions, would give us several hundred pages of interesting and practical information.

Dr. Lodge favored the proposed organization. It should include the practitioners of Canada and Ohio as well as those from the states named by the professor. They could support a first class monthly journal, which would assist the cause without in any way interfering with the sphere of our quarterly, the NORTH AMERICAN, and also perform many other important uses, yet, he would not for a moment entertain the idea of abandoning our present state societies, as there were objects to be accomplished which they alone could succeed in obtaining.

On motion of Dr. Walker, it was resolved that such members as may find it convenient to attend the meeting of the Illinois Homœopathic Association in May next, shall be considered as delegates from this Institute.

The President remarked that he was gratified at finding the Western homœopathic physicians so determined upon progressing. There should be a concentration of effort and of means. We can take a position in advance of what any state government will do, and make a united effort to establish an institution where every medical improvement of the age shall be regarded, and a more complete and thorough education furnished to every homœopathic student.

Dr. Hale favored the formation of the congress of Homœopathic physicians, and offered the following resolution which was adopted.

Resolved, That this Institute favor the early organization of a homœopathic congress, composed of the homœopathic physicians of the Western States and Canada.

On motion it was resolved that the next meeting of the Institute shall be held during the second and third days of the next State Fair, or at any other time upon the call of the President and Secretary.

The following members were on motion of Dr. Hale, appointed a committee to make arrangements for the next annual address: Drs. E. R. Ellis, A. Walker and E. A. Lodge.

On motion of Dr. Albertson, the Secretary was instructed to print 250 copies of the proceedings of the Institute.

On motion of Dr. Walker, it was ordered that if the amount collected from dues, &c., shall not be sufficient to cover expenses, the Secretary be empowered to assess the remainder upon the members.

Adjourned to 2, P. M.

Afternoon Session.

Drs. Hale and Albertson were requested to report special Committees for the ensuing year. They reported the following who were unanimously appointed by the Institute:

On Dose: Doctors P. H. Hale, C. J. Hempel and C. A. Jefferies.

On Intermittents: Doctors A. I. Sawyer, A. Walker and E. M. Hale.

On Pneumonia: Doctors C. A. Williams, E. R. Ellis and J. A. Albertson.

On Pharmacy: Doctors E. A. Lodge, A. R. Botsford F. Finster.

On Acute Exanthemata: Doctors E. H. Drake, A. W. Walker and S. M. Jones.

On Diphtheria: Doctors A. Bagley, Smith Rogers and S. W. Pattison.

On motion, it was resolved that a memorial be presented to Governor Austin Blair, setting forth the fact that the homœopathic physicians of this State are as a body, composed of loyal and patriotic men, willing and able to devote their skill and energies to the alleviation of the sufferings of sick and wounded soldiers, and that the homœopathists of this State have quite or nearly been ignored in the appointments as surgeons, without just cause; and that this Institute, speaking for the homœopathists of this State, respectfully ask that they be no longer debarred the privilege of serving our common country in this momentous struggle for national liberty.

The President and Secretary were directed to attend to the preparation of the memorial referred to in the last resolution.

Dr. E. M. Hale read a paper on the importance of a single symptom, which was listened to with great interest.

The Nitrate of Uranium having been referred to in Dr. Hale's paper, a conversation ensued in reference to this remedy which was participated in by several members.

Dr. Lodge referred to its beneficial use in the excessive urination which attends many cases of spermatorrhœa.

Dr. Ludlam said that he had found the 3d decimal trituration very advantageous in cases of enuresis in young children.

Dr. A. Walker found it beneficial in the case of a lady who was afflicted with a fungous growth attached to the mucous membrane of the bladder; she suffered from a constant desire for micturition and excessive pain. The Nitrate of Uranium afforded relief. He gave a solution of the second trituration, three or four grains to a gill of water, it produced a serious aggravation, when he reduced the quantity instant benefit was received. The case progressed to recovery. This patient had previously been confined to bed for six months.

Dr. Hale related a case where a dose of two grains of the second trituration gave immediate relief to a patient who had not spent a single night for two years without being obliged to urinate several times.

On motion, the Secretary was instructed to furnish a report of the proceedings of the Institute to the daily papers and journals.

The Institute passed a vote of thanks to Major Cass for his courtesy in inviting the members to visit his gallery of paintings and statuary.

Adjourned *sine die.*

EDWIN A. LODGE, *Secretary.*

Practical Cases from the German Journals. Translated by S. LILIENTHAL, M.D., of New-York.

1. TUSSIS HÆMORRHOIDALIS. BY DR. GASPARY, OF BERLIN.

Mr. T. has suffered for a year with obstinate chronic cough. He is forty years old, of a phlegmatic temperament, and in the enjoyment of good health. The cough came on without catching cold or any other known cause. Cough takes his breath away; motion aggravates it, producing dyspnœa; change of weather has no influence; panting and with labor only could he ascend any steps. Position on the right side aggravates the cough and dyspnœa, on the left side or on the back he could rest perfectly easy and sleeps quietly the whole night; but after rising, the cough, with a great deal of yellow mucous expectoration, begins; his head is free; in consequence of the straining during cough, his eyes frequently run water; vision is not disturbed; his nose is always dry, and his tongue clean; appetite good, but eating provokes cough, so that he often vomits his food when coughing; digestion normal; stools natural, and generally the annoying cough does not interrupt him in his business. Examination proved his chest strong and sound. Prescription Tinct. Spigelia. After a week, amelioration in the cough and dyspnœa, but since the last few days a great deal of pain in the back with severe itching in ano, hindering him from falling asleep. Twelve powders Nux.-v., dil. 3. daily two powders. He used two powders twice with great relief, and complained then again of aggravation of the cough with headache. Hep.-sulph. 3. gtt. iv.; daily a powder. Three weeks after he announced himself perfectly restored.

2. HÆMOPTOE. BY DR. MARWEG, OF SCHILDBERG.

Miss S. suffered five years ago with hæmorrhage of the lungs, showing itself still when clearing her throat, with boring digging up pain in the left side of the chest. Greenish-yellow expectoration and after severe exertion pure blood comes up; auscultation and percussion gave no safe points for the diagnosis. The cough was extremely painful, dry, without expectoration; from the back a boring pain through to the sternum, more on the upper left side, where there is wheezing with every breath. When bleeding, the blood was warm and clear, changing with greenish yellow lumps; continual sleepiness. She has a hole in the palate in consequence of a fall, and speaks, therefore, with a nasal twang. At 4, P. M. she has fever for an hour; dreams a great deal, and complains of anxiety and palpitation; the left leg down to the knee without feeling, nearly paralyzed, and from the calf to the knee swollen; courses appear with cutting pains, last three days; she is then constipated.

Taking the former fall as the cause, I looked to Rhus., Arnica and Ruta for help. But as she had a slight hepatic eruption on the left cheek, I began treatment with Sulph. 30 and Arn. 6, and eight days after Sulph. 4 and Arnica 2, in alternation every six hours, under which she improved, with more free expectoration. But as this chronic hæmoptœ was certainly connected with a dyscrasia, I now gave Rhus. 15, ten pellets in three ounces Aq. dest., and in twenty days afterwards a second dose, when great amelioration followed, cough and expectoration vanished, and six weeks afterwards she only complained of stitching pain, stitches in the back and some coppery redness in the face. Ruta 3 and Rhus. 9, every alternate fourth hour, and in eight days she was well enough to go to a ball. A year has now passed, and the young lady still enjoys the very best health.

3. CURE BY EVONYMUS-EUROPÆUS. FROM THE PRACTICE OF DR. ELB, IN DRESDEN.

Mrs. L., fifty years old, having passed the change of life several years ago, has suffered for the last two years from the deepest melancholy and has already made several attempts at self-destruction. She suffers also with emphysema pulmonum and bronchial catarrh, even threatening suffocation. Steady oppression in the chest with anguish, aggravated to suffocation in lying down; and every motion, even chewing, increases the distress for breath; no appetite, even a little tea or soup producing this distress for breath. She is also afflicted with hereditary gout with swellings of the knee and joints of the hand. Has been under different medical treatment. I gave for the bronchial catarrh Calc., Sulph., Merc., Bell. for two months without the least benefit. In Evonymus I found at last this internal oppression of the chest with melancholia, and prescribed it, therefore, without much hope, in the third dilution, three times a day, five pellets (drops in water produced coughing spells). After three days the melancholia was gone and the other symptoms decidedly improved. Patient could sleep now in bed for three or four hours, and after a few months she could walk again in the room. Five years have passed and the cure is permanent.

4. HYDROCEPHALUS ACUTUS CURED BY LYCOPODIUM. BY DR. ELB, OF DRESDEN.

George F., three and a half months old, well fed but always pale looking, whose father was tuberculous and his mother very scrofulous, got sick on the 19th of April, 1859, with a severe bronchitis. Acon. and Bry. brought great relief in a few days, the cough got loose, rattling noise was heard over the whole thorax and the child was again able to nurse, although the voice remained hoarse and his nights restless and without sleep.

On the morning of the 20th, I barely found a symptom of bronchitis, but the child was in a high fever with short unequal breathing; the little patient was half soporous; full perspiration round the head; sudden screaming; pupils very much dilated; insensible to light; secretion of urine diminished. Diagnosing acute hydrocephalus, I prescribed on account of the fever, Bell. 3, a few pellets every three hours. No alteration in the evening.

Next morning I heard that the child had severe and frequent spasms during the fore part of the night, intermixed with sudden screams. From mid-night till morning the child laid as if dead, with half closed eyes, the breathing short, rattling and uneven. At two, A. M., I found the most perfect sopor, pupils dilated to the utmost and insensible; coolness of the body; from time to time spasms of the extremities and of the muscles of the face; respiration sometimes suspended; pulse small, trembling, hardly to be felt and impossible to count. Since seventeen hours not a drop of urine had been passed although he had several semi-fluid passages from his bowels during the night; the bladder felt empty, and it was clear that all secretion of urine was suppressed, and that an increased effusion in the brain had taken place without any new inflammatory symptoms appearing. Having no confidence here in Bellad. or in those other remedies praised for hydrocephalus, I prescribed Lycopod. 6, glob. iij. every three hours, and during the return of severe spasms Zinc 1, hourly. In the evening, after three doses of Lycop., the same soporous state still remained, the same coolness of skin; the same pulse; the same breathing and screaming, only the headache was more moderate; the spasms were less, and he had passed twice a little urine, but of what quality I could not find out. Continue Lycopod.

On the morning of the 22d, I found a most remarkable change. The spasms had not returned; the child had slept several hours during the night; no screaming; heat of skin returning, and from eight, P. M., to ten, A. M., had passed urine five times, the first sparingly and staining the edges of the clothing of a dirty brown, the latter more copious and without color; the child was more lively, warmer and took notice again; pulse larger, less frequent, more regular; pupils dilated, but responding to the action of light. Continue Lycop. The evening found my little patient lively, only for a few minutes at a time was a little sopor perceivable during the day; temperature of the skin normal. He passed copiously urine nearly every hour during the day. Child has nursed well. Lycop.

23d April. Sound sleep till two o'clock, followed by restlessness; short and rattling breathing. At my morning visit I could not find a trace of hydrocephalus, but the bronchitis, which had remained stationary during the intercurrent brain affection, appeared again with renewed force. Phosphor, followed by Tart.-emet., cured those symptoms by the 26th, and the child recovered rapidly.

5. HELMINTHIASIS SIMULATING MEMBRANOUS CROUP. BY DR. CARL MULLER.

On the 16th of January, at four, A. M., I was called to a child, said to be suffering with croup, living about ten miles from my residence. I sent Aconite and Hepar, promising to call as soon as possible. Already in the afternoon, I heard the whistling metallic respiration. Patient was a well-nourished, red-cheeked boy of three years, and never before sick. The day before, with east wind and—4°R., and the sky being clear and sunny, he had taken a walk with his nurse, although he had sneezed and coughed several times a few days before. About midnight he awoke coughing, wanting air, throwing himself about and the head back, with red face and great thirst. When I saw him, he was still restless; pulse irritable; cough rough, whistling, exactly as in real croup, and without any secondary beat during inspiration, so that there was always only *one* barking rough sound. Auscultation and percussion impossible on account of restlessness. The physician, who saw him about midnight, had diagnosed angina membranacea, and ordered Leeches and Calomel, with marsh-mallows syrup in water. I ordered Spongia 3, every half hour, but by four, P. M. his state was the same. Thinking it might be only laryngismus stridalus, I changed to Belladonna, but the cough did not change. About six, P. M., I observed the child boring frequently in his nostrils, and was told, that he does it frequently. Hearing him also for the first time speak, I found his voice perfectly clear. I was now very sure that the disease was not croup, and after examining his urine, which I found muddy and of a color like a yolk of an egg mixed with milk, I prescribed Cina 3. Slept till three, A. M., when the cough was moist and all danger over. A few doses of Ipecacuanha restored him entirely. Three years before I treated his brother, who was taken with what appeared to the attending physician, hydrocephalus acutus. He was martyred with leeches and ice on the head; Calomel, Digitalis, Squilla, blister, &c., &c., but the disease increased in spite of all the formidable treatment. Diagnosing worm irritation, I threw everything aside, and ordered Cina, and the child was cured in a few days.

6. NOTE SUR LE TRAITEMENT DU FORONCLE ET DE L'ANTHRAX. PAR LE DR. S. FELDMANN À PARIS.

Dupuytren, Chelius, Cooper and Brodie are the champions for incision; Nelaton, Walther, Laycock are opposed to it. Great authorities on both sides! Who shall decide, when doctors disagree? Dr. Feldmann is for letting well enough alone; for *the cutting short practice favors the formation of consecutive furuncles and anthrax*, as the operation produces an involuntary inoculation, the morbid matter being absorbed by the fresh cut little veins and lymphatic vessels, as also by the freshly cut cellular tissue. Another remarkable circumstance is, that in most cases the consecutive furuncles—follow *the law of declivity.* Thus to an anthrax on the neck, follows one on the the back, on the buttock or on the perinæum; if first on the back, the next one is on the thigh in the region of the great trochanter. Here the doctor cites several cases, where every furuncle or anthrax, cut short by incision, produced fresh ones, so that sometimes the final cure was postponed to five or six months, when another anthrax of the same size, left alone, discharged its debris in a few weeks with a perfect cure in so short a time. Another reason against incision, is that in individuals with arthritic or rheumatic constitutions, incision is often followed by very grave consequences. No matter, let the disease be generated by external or internal causes, all we have to do, is to circumscribe it to its focus, and to do nothing which could create analogous tumors. We therefore abstain from all incisions, give a wide range to all topic irritants, oily or greasy, but use only *emollient fomentations.* The chief of these is the *warm bath*, of 30° to 32° centigrades, and of a duration from three to six hours. Be not startled, the great dermatologist, Hebra, of Vienna, uses in extensive burns the continuous bath. In one very severe and extensive case *he left his patient for three weeks, day and night in his hot bath, and cured him.* Poultices act as local baths and answer for cases of less intensity. He prefers the bread and milk poultice; Linseed has too much oil and ought to be abandoned, for all oily and fatty substances are apt to favor the resorption of morbid matter. But poultices to be useful, must be carefully and assiduously applied. To that effect, we cover the sore with a pledget of lint, to enable it to bear a greater degree of heat, and after putting on the poultice, cover this again with oil-silk. The frequent employment of poultices produces frequently small pustules on the skin, which can be obviated by pencilling it beforehand with elastic Collodion. This Collodion is also an antiphlogistic par excellence. Well applied, it withdraws a great deal of heat, reduces the swelling, lessens thus the intensity of the pains, and the core will come off easier. In lighter cases the application of poultices is unnecessary and carded cotton suffices, combined with the Collodion. In anthrax with profuse fetid suppuration, the topical application of the Chlorare d'Oxyde de Sodium is excellent. Lotions or compresses soaked with the chloride, diluted with five or six times its quantity of water, suffices to carry off all fetidity in a very short time.

As soon as suppuration is well established, only simple dressing with lint is indicated, and only sometimes it is necessary to use caustic in order to modify a too much elevated surface.

Strict diet, diluent drinks, emolient injections and mild purgatives are necessary in the first stage. There is no hurry to use tonics, which only increase the inflammation. A little Opium at night to produce rest. For the consecutive treatment, there is no other depurative equal to water, internally and externally; frequent drinking of water and oft-repeated lukewarm baths. The dermatologists recommend Arsenic.

Highest Flight of the Balloon.

In the summer of 1862 M. Gluisher, accompanied by Mr. Coggswell, made an ascension in a balloon, in which he reached the greatest height yet attained by aerial travellers. M. Gluisher was fully competent to make accurate observations until he reached the height of 30,360 feet—about five and three-fourths miles. Approaching that point, he says: I read 10.8 inches as the height of the Mercury in the barometer. In endeavoring to read the wet bulb, I could not see the column of Mercury; I rubbed my eyes, then took a lens, and also failed;—I then endeavored to reach some brandy that was lying at the foot, and found myself unable to do so; my sight became more dim; I looked at the barometer, and saw it at 10 inches, and sinking rapidly. I just noted it in my book, when I saw it at 9¾ inches, or equal to 5¾ miles above the earth. The change of an inch in the height of the barometer indicates a change of elevation of about 25,000 feet. I now felt I was losing all power, and endeavored to rouse myself by struggling and shaking. I attempted to look at the barometer again; my head fell on one side; I struggled and got it right again, and it fell on the other side, and finally backward. My arm, which had been resting on a table, fell down by my side. The atmosphere became more misty, and finally dark, and I sank unconsciously, as in sleep."

M. Gluisher's place was now assumed by Mr. Coggswell, who continued to ascend until the barometer appeared to mark only 8 inches, implying a height of 6½ miles above the earth! The temperature was then some degrees below zero. On leaving the ground it had stood at 59° above (Fahrenheit). The descent was effected safely, without any accident. Pigeons let loose at the height of 4 miles fell suddenly down like stones, and were taken up dead from the ground.

Homœopathic Medical Society of the State of New-York.

Progress in medical science is promoted mainly by comparing opinions, and communicating the results of experience. To this end medical societies are formed, which may accomplish by association what cannot be effected by individual effort. They diffuse a practical knowledge of the healing art, and afford the profession opportunity for consulting how to advance the cause to which their lives and energies are devoted.

The homœopathic practice has constantly increased in favor in this State for more than thirty years, and its friends have long desired its public legal recognition, as it is now realized in the incorporation of the State Homœopathic Medical Society. Correspondence has revealed the great importance of a system which shall secure unanimity of feeling and oneness of action. And since the State Association has been organized for this purpose, let the members of the profession take a deep interest in its prosperity, feel an individual responsibility in its success, and mutually extend to it a generous support. It is composed of delegates from the County Societies, and is designed to afford the means of securing concerted action on all subjects pertaining to the interests of homœopathy. Thus it forms a bond of union, a means of fraternization between the profession from all parts of the State, and a common centre of influence and usefulness.

It is desired to obtain reports on the following subjects, for presentation at the next meeting:

1. A history of the rise and progress of homœopathy in each country. This should contain a list of all the practitioners and their addresses in full,—the time of their adoption of this system of practice; also, a short notice of any deceased members of the profession.
2. A history of each County Homœopathic Medical Society. For this, it is necessary that the reports should contain a list of its officers and committees, of its members and their addresses in full; also the time of holding the annual and regular meetings, and a copy of the proceedings of these meetings, so far as their publication may be deemed expedient.
3. Reports of cases from practice, showing the superiority of homœopathic treatment in every variety of disease.
4. Record of Drug Proving.

Thus, it will be observed, that ample opportunity is afforded every homœopathic physician in the State to contribute useful information on any subject relating to medical science. It is of the utmost importance that the homœopathic profession of the State should immediately improve this opportunity to maintain the ability and literary standing of their school. Surely, there can be no greater inducement to secure united effort to perfect our system, augment its utility, and render its scientific character prominent.

The next semi-annual meeting of the Society will be held at Albany, Feb. 10; and the annual meeting at the same place, May 12.

Term of office expires May 1, 1862:—Albany, Broome, Cayuga, Chautauqua, Columbia, Erie, Cattaraugus, Rockland, Richmond, Schenectady, Steuben, Sullivan, Tioga, Tompkins, Wyoming, Hahnemann Academy of Medicine.—15 counties, 16 delegates.

Term of office expires May 1, 1863:—New-York, Chenango, Clinton, Cortlandt, Fulton, Hamilton, Herkimer, Madison, Queens, St. Lawrence, Suffolk, Ulster, Washington, Wayne, Westchester.—15 counties, 17 delegates.

Term of office expires May 1, 1864:—Chemung, Dutchess, Kings, Oswego, Alleghany, Delaware, Franklin, Genesee, Livingston, Monroe, Montgomery, Orange, Orleans, Seneca, Yates, Homœopathic Medical College of New-York City: 15 counties, 16 delegates.

Term of office expires May 1, 1865:—Ontario, Otsego, Oneida, Onondaga, Rensselaer, Saratoga, Essex, Green, Jefferson, Lewis, Niagara, Putnam, Schuyler, Schoharie, Warren.—15 counties, 16 delegates.

Editorial Error Corrected.

In our last number, page 320, we were inadvertently led, by imperfect intelligence then received, to allude to two distinguished and honored personages of the same name in one paragraph. It is due to both that our mistake be corrected, though much that we have said was fairly applicable to both. It is now only necessary to state that Dr. Helmuth, of Philadelphia, is still living in that city, and working as ever for the cause of homœopathy.

Mistakes such as we have committed have had precedents among many greater men. John Randolph announced in the house of Representatives the death of William Pinckney, the American jurist and orator, pronounced an eloquent eulogy upon him, and Congress adjourned and went into mourning, to be afterwards informed that Mr. Pinckney was *not dead.* If Randolph was mistaken in saying, "There *has been* a Homer, a Shakespeare, a Milton, a Newton; and there *may be* another Pinckney, *but there is none now;*" we are happy to feel safe now in saying, there *is still* a Dr. Helmuth, and—*more than one.*

Progress of Reform in the Ranks of "Regular Medicine."

The *Buffalo Medical and Surgical Journal* publishes a letter from a physician of a western city to his brother in Massachusetts. A part of this letter, like the calender in a quack almanac, as "calculated to serve with little variation in all the adjoining states," we copy it.

"When you propose hereafter to advise medicine, first consider if any is really necessary, and how little will answer the indications, and then select those articles which are comparatively unobjectionable or less injurious than the disease itself, which by doing you can greatly diminish your medicine bill, and at the same time the 'bills of mortality.' I do not mean you in particular, but all doctors, myself among the number. I used to kill patients in pneumonia with bleeding, blistering, Antimony and Calomel. I now give Dovers' powder. My patients recover sooner, more certainly, and with vastly greater comfort. Dovers' powder, Quinine and whisky, are now the only remedies, and most patients would recover perfectly well without either. I had never studied disease unmodified by treatment. I had never had any such opportunity, for every one sick, was fed on drugs, not a single case was ever found for learning the natural history of disease, within the limits of

New-England. Pneumonia and pleurisy were fashionably treated by bleeding, purging, blistering, Calomel, Antimony and Opium. 'High fever,' as it was often called, was treated upon 'general principles,' by depletion, whatever might have been its nature or cause. In apoplexy bleeding was universal, and many a poor, worn out, old man or woman, with just enough of life to move about, was bled for some prickling sensations or numbness of the feet or hands; severe pain in the head or elsewhere demanded depletion; after falls and injuries of all sorts, broken bones, sprains, &c., evaporating lotions were preceded by venesection. We were more ignorant than we were born, doing vastly more harm than good, and receiving the wages of sin, as the rewards of righteousness.

Twenty years hence and our present practices may astonish us as much. The multiplicity of our remedies, and the confidence with which, they are urged, as valuable in the different manifestations in disease; the present distrust of the powers of nature, unassisted by drugs, to recover us from diseases, and our readiness to take and advise many of the articles in common use with physicians, I have no doubt will yet become as much a matter of surprise and astonishment as are the greatest absurdities of by-gone generations."

Different Views on the Doses. Extracts from the Austrian Hom. Zeitschrift, I., II., 1862.

1. **Dr. Argenti.**—Similia similibus is no hypothesis, no speculative illusion, but a law of nature, and therefore a consequent homœopath can only use small doses as remedial. Larger doses, as the essences, triturations or first dilutions are at least unnecessary, as the smaller ones suffice, without producing tumultuary reactions. Since twenty-five years he uses only pellets, moistened with the higher dilutions. In acute diseases he dissolves three pellets in ten tablespoonsful of water, repeating the dose as often as required, in chronic cases he gives three pellets at once. Which dilution is the most suitable for this or that disease, is of no great moment, but I prefer always the higher dilutions, from vegetable medicines, dilutions between the sixth and fifteenth, from minerals between the fifteenth and thirtieth, but usually the latter.

2. **Dr. Bærtl.**—My rule is, to treat diseases in the beginning with small doses, and if no amendment follows, to give stronger doses, supposing the same medicine still indicated. One first indication always remains, to remove, if possible, all the causes which produced the disease. In the selection of the remedy we have to examine the character, the form and the speciality of the disease, also the ruling genius epidemicus, next we have to study the reactionary power of the patient, of the suffering organ or system, and the constitution of the patient, and thirdly the individuality of the remedy, and the doses applicable to the case. With strong reactionary power of the patient, I usually use the 15—18th dilutions; is this power weakened, as after tedious and long suffering, or after a storm in the innervation, as we find it after severe losses—hæmorrhages, suppurations, diarrhœas, cholera, then I fall back to the lower dilutions in the repeated doses, yea, even to the strong tinctures, one drop per dose and repeated. To this reactionary force only suppressed, as in hyperæmia, where only the influence of the nerves on the constitution is weakened, then we use

the medium dilutions, but fall back to the lower ones, when necessary. Diseases deeply engrafted on the constitution, as scrofulosis, syphilis, sycosis, scabies, demand mostly the lower triturations and dilutions for their eradication, yet sometimes the higher ones and a change of remedies are indicated.

3. Dr. Garey.—Diseases are produced by the smallest agencies, therefore the smallest agencies are only required for their cure, if that agency corresponds to the given proportions of the diseased body. A large or a small dose may be indicated in one case and in the same patients at different periods of the disease. The smallest dose produces toxicological effects, if it meets in the individual a correspondence to produce its actions, and the largest dose will fail, if that other factor, the suitable individual, is wanting. The question about the healing power of the highest potencies is yet far from being solved, but experience has proved, that a medicine can only be called a remedy, by giving proof of its efficacy in less than 3—4 times twenty-four hours. I have cured thousands of patients with the pure tinctures and crude triturations, but for years I have used only the 30th potence and sometimes even the higher dilutions (300), and am equally successful "when the remedy corresponds to the case." It is a fact, that even the smallest dose of a well-selected remedy will have remedial power, yet there are cases where more massive doses are peremptorily required for the cure. The remedy acts then quasi as an antidote by direct chemical combinations, produced all over the body, whereas the mineral dose produces only the impulse to the body for carrying out those necessary chemical changes.

4. Dr. Kik uses only the highest dilutions except in syphilis and sycosis, and gives mostly pellets. He is very successful, although not very strict about diet.

5. Dr. Veit Mayer.—A remedium simillimum can be given in the very smallest dose, but we require larger doses the less the remedy corresponds to the disease. There is a direct and an indirect way to cure. If there is in our materia medica a simillimum to a given case and we select it, a cure will certainly follow, but if there is none or we are unable to find it, we will then have to employ several remedies, of which each corresponds only to a part of the symptoms of the disease, and removes thus piecemeal and by degrees the whole disease.

6. Dr. Szontag.—In order to make a medicine adequate to the removal of the diseased process, we have to consider: A. in behalf of the disease. 1. The quality and intensity of the causal moment, *id est*, the more intensive and the more material the cause, the lower and the more material must also be the dilution or trituration. 2. Its acute or chronic course, for the abnormal motion in chronic diseases is less intense and stormy, and requires therefore a smaller dose. 3. The seat of the disease and the way the organ is primarily affected, for all organs in like circumstances are not equally disturbed. Thus diseases of the cerebro-spinal system require smaller doses than those of the ganglionic system, those again smaller than the diseases of bones and muscles. 4. The individuality of the patient, i. e., his especial irritability in general and his own susceptibility for

certain medical agents, sex, age, constitution, temperament and disposition for certain diseases have also to be kept in view. B. in behalf of the remedy we have to consider. 1. The more or less similarity between the pathogenetic effects of a remedy and the symptoms of the disease. 2. The intensity of its effect on a healthy body. Dr. Szontag uses only the lower dilutions from 1—15, because. 1. They sufficed always. 2. They are easier got pure than the higher ones. 3. The lower dilutions are not dangerous. In more than one thousand cases he finds only seven aggravations, produced by powerful medicines, given most probably in too large doses.

7. DR. B. BÆHR (*Die Therapie nach den Grundsætzen der Homœopatie*).—A plain dedication from our law "s. s. c." is the formula, that every medicine has to be given alone without any admixture of another medicinal substance. The alternation of medicines may be excused under certain circumstances, but never defended. The diagnosis may be uncommonly different, and the selection of a simillimum equally so, and it might be then excusable to give two remedies in quick alternation, till the diagnosis is confirmed. What dose of a well-selected remedy to give, finds its solution in the difference of the individual sensibility for medicinal impressions, in that of the diseased state and of the medicine itself. Homœopathy requires not only the strictest individualization in behalf of the diagnosis of the disease and the remedy applicable to it, but also every particular dose must fully cover the particular state of the present status of the disease. Our rule, therefore, is: The required dose must be so large, that it produces its full curative effect without any medicinal, and if possible, without even any homœopathic aggravation; therefore: 1. Every medicine, given according to s. s. c., must be given in a relative small dose, or in other words, our medicine must only give a reactionary impulse, without leading that reaction in other directions, and intending to do this inside the circle of the diseased parts, we are never allowed to give any medicine in such quantity, as to produce its specific effect on other organs and systems. 2. The question, how small a dose can be, to be still curative, is not yet solved. 3. It is certain that the lower degrees of diminution of medicines produce a quicker effect, more intensive for the moment, but less durable than the higher degrees, whose effects are slower, but more lasting; therefore the lower dilutions appear more indicated, where there is danger in delay, the higher ones on the contrary, where there is time to wait. 4. The more the remedy selected is a simillimum of the disease to be cured, the surer will be its effect even in its smallest dose. 5. The individuality of the medicine must be considered in the selection of the dose. All those inorganic substances, insoluble in water or alcohol, get only a remedial power by several triturations, we have also to consider the intensity of the action of a remedy, and must never use Sublimate or Nux. in so large a dose, as it could be done without damage with Cham. or Sambucus. 6. The speciality of the diseased person.

Physiology gives us satisfactory indications about diet, and we do not require that strict homœopathic diet for the full effect of our medicines.

DR. ÆGIDI.—That there is a material division of remedial matter in the first homœopathic dilutions, is certain and easily comprehended. To what degree this division is possible, is different according to the nature and qualities of the remedies. But suppose that this degree is reached already in the third dilution of a certain remedy, and all matter reduced to its atoms, all further dilutions, inasmuch as they still possess pathogenetic qualities, can contain only those atoms. Matter, reduced to its indivisible atoms, possess the qualities of imponderabilia, as the electric, magnetic, odic agents, or the nature of miasma or contagium, which remain the same ad infinitum. I cured a polypus nasi with the 1000th potency of Teucrium, and a chronic Chorioiditis with Sulphur 2000, but I have cured the same diseases with low potencies of the same remedies. Experience proves, that the first and second decimal dilutions lack in very many cases that remedial power, so decidedly proven in the higher potencies, clearly indicating that medicinal matter gains only the power of dynamics, after being brought down to their indivisible atoms.

Lepra—Leprosy.

The increase of some forms of this disease in some parts of the Western Hemisphere will justify a hasty review of some of the authorities on the subject. It was once universally known and dreaded; from the sixth to the fifteenth century it attracted a large share of the attention of lawgivers and philanthropists. Many ordinances were passed for the regulation of their civil rights; and Lazar-houses were erected in all the countries of Europe. The lepers were regarded in law as civilly dead; their funeral obsequies were performed, and masses said for the benefit of their souls. The marriages of lepers were void in law, though they were allowed to marry other persons affected with the same disease.

In the fifteenth century, leprosy prevailed over all Europe; but from that period it gradually declined before the advance of civilization and the improvement in the condition of the poor. In England it has probably been unknown for between two and three hundred years; in Scotland it lingered to within the memory of persons yet living. In Shetland it was not extinct at the close of the last century. In 1798 a case from Shetland was in the Edinburgh Infirmary. In the middle of the sixteenth century the governments of Germany, France and Italy suspended the leper houses. A few cases are yet reported in the south of France, in Catalonia; in Sardinia about sixty cases remain. The disease still exists in Asia Minor, Arabia and the East, at the Cape of Good Hope. In Surinam and Demerara it has been domesticated through the importation of slaves from Africa; in the British West India Islands it is continually introduced by the Chinese Coolies; in the Faroe Isles it has gradually declined since the sixteenth century and is now extinct; in Iceland it lingers in a few spots on the coast where the inhabitants live only by fishing. The lepers were very numerous before 1707, when the great small-pox epidemic swept off most of the leprous families. In 1768, 280 lepers were still in the Island, and there was a law which still exists, prohibiting the marriage of lepers. In 1846, they were reduced to 66. In Sweden, leprosy is nearly extinct; in Norway it still prevails. It is most common in the vicinity of Bergen, where there has been a hospital for lepers since the year 1277. The Hospital St. George (the building) is 160 years old, and its entire arrangements have continued unchanged for three centuries. There is a true "leper house" and the true leprosy of the middle ages.

In Norway, leprosy has been on the increase for at least more than thirty years. In 1836 there were but 659 cases; in 1845 the number was 1122; in 1853 the number was 1782. They are found along the whole coast from Stavanger to Hammerfest, a distance of 800 miles. The number in 1856 was 2000. The subject of prohibiting the marriage of lepers has been since debated for four months at a time; and the decision has been that the subject is not well enough understood to justify any legislation upon the subject.*

By the laws which have existed from the times of Moses, the inhabitants of Palestine affected with leprosy are isolated from all actual contact with their fellow men. The quarters of the lepers is a melancholy place. A traveller says: "Near the gate of Zion, on the way to Bethlehem, I saw many of them sitting on the rock, their hideous faces uncovered, thrusting forth their scaly hands for alms. Their huts are rudely constructed of earth and stones, seldom more than one apartment, and this so filthy and loathsome that it seemed unfit to be occupied by swine. There they live from generation to generation." "I passed when the rays of the sun were cold and the light was dim; and there came out from the reeking hovels, leprous men, gaunt with famine, and they bared their hideous bodies and howled like beasts; and women held out their loathsome and accursed babes, and tore away the rags that covered them, and pointing to the shapeless mass, shrieked for alms. All was disease and sin, and sorrow wherever I went." Such is the leper: "death gnaws at his vitals, and unceasing tortures are in his blood; he is cast out from the society of his fellow-men, and forbidden to touch, in friendship or affection, the hand of the untainted." And yet, life such as that, he thinks worth having, and struggles to perpetuate it.

Geo. K. Kendall, in his narrative of the Texan Santa Fe Expedition (Vol. II., p. 220), describes the *lazarinos* or lepers of the Hospital San Lazaro. He says it appears in many different aspects.

In 1844, the existence of leprosy in New-Brunswick attracted the attention of the provincial government, and a medical commission was appointed to investigate it. The report of the Committee clearly shows that the disease was the *Greek leprosy*, having no affinity with elephantiasis.

Causes.—Drs. Boeck and Danielssen have maintained that leprosy is a thoroughly hereditary disease,—that it descends from generation to generation; they think it descends more by the collateral branches than by immediate succession; and that it frequently skips over one, two, or three generations, to reappear with fearful severity in the fourth.

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* See "The Spedalsk Disease: its Causes, Cure, and *Prevention*." By D. C. Danielssen. 1854. *Norsk Magasin*, parts IX. and X. 1856.

The belief in hereditary transmission was so general in Norway that a proposition was laid before the Storthing, in 1754, to prohibit the marriage of all lepers, and of their immediate descendants; the bill was debated but was rejected. Dr. Hjort thinks the disease not entirely propagated by contagion.

Contagion.—Denied by Hjort, Danielssen and Boeck; but Hoegh, in his report 1855, is inclined to admit a secondary infection through the acarus scabiei, so frequent on the skins of lepers. He says the crusts and horn-like elevations that, in many cases of spedalsked, cover the arms and face, are now found to be composed entirely of the remains of *acari* closely agglutinated together; and, on removing forcibly these crusts, living acari are to be found on the ulcerated surfaces beneath. In one family residing at a height of 2000 feet above the sea-level, a female aged twenty-five, of a family not related on either side to any leprous subject, by associating with a leprous girl, became a year after affected with leprosy; she then communicated it to her sister, her brother; then her mother.

Other External Influences.—Dr. Hjort attributes the increase of leprosy in Norway to extension "of the great sea fisheries" on the coast of Norway, "exactly on those parts of the coasts where the spedalsked is most prevalent." In the last century there existed large fisheries on the coast of Sweden, and leprosy was very common there. In 1807, the herring shoals left that coast, and immediately showed themselves on the coast of Bergen; leprosy declined on the Swedish coast, and in 1837, the hospital of Uddevalla had hardly a single leper. But since the transfer of herring fisheries to the coast of Norway, leprosy has gradually extended.

It is a disease of the sea coast, but extending up along the fiords or inlets which extend toward the sea, and along which the fishermen are congregated. There the air is damp, loaded with sea-fog, though the winter cold is intense; swampy land, stagnant waters, the water intolerable. The houses are small with small windows, little light; windows always nailed down, never opened, or the house aired or swept once a year. The dog and pig live in the hut with the family who eat, cook, and sleep in the same room. The children go without shoes to herd the cattle on the hills from which the snow is melting; they endure the storms of spring, the rains of summer and the heavy mists of autumn; they sleep in their unchanged clothes, which are rarely if ever washed; face and hands may be washed twice a week, the feet twice a year; the rest of the body, *never.*

From the first of January till the end of March, the hardest period of the northern winter, the men are engaged in the herring fishery. They spend the night on the bare ground under an upturned boat or a sail spread as a tent. The men are packed together, lying side by side upon the floor in their wet clothes. The condensed vapor from the breath and that from the wet clothes drips upon them from above; and the air, filled with offensive exudations, is unfit for respiration, cleanliness is totally neglected. The greater part of the day is passed at sea, half frozen in an open boat.

From the 1st of February to the middle of April, the Norwegian peasants

> "Throng the shores where dread Loffoden
> Whirls to death the roaring whale:"

Not less than 3,500 boats, each manned with six men, assemble at these fishing stations

> "Around the shores where Runic Odin
> Sings his death-song to the gale."

To these dreary isles, beyond the Arctic Circle, they make their voyages and return in the course of two weeks, having neither changed nor dried their clothes in the time; having slept on "the soft side of boards" for beds, twenty men in a lodge that had no chimney to favor the escape of smoke; the floor is never swept and accumulating filth is never removed.

The food of these people among whom leprosy is increasing in the midst of the advancing light of the 19th century, consists chiefly of fish.—Salt fish, imperfectly preserved, having lain too long on the shore waiting for a purchaser. When no purchaser comes, the half putrid fish are partially salted, and after the lapse of some weeks they are "pickled," that is, *soured* by becoming half rotten. A vitiated taste acquired by long use, leads the peasant to prefer the tainted fish to those fresh from the sea; and they seldom eat any until the process of decay is far advanced. Other meats, if used in Norway, are hung up in a salted state for years.

ELEPHANTIASIS GRÆCORUM (ELEPHANTIASIS OF THE GREEKS).

Definition.—Dusky red or livid tubercles of various sizes on the face, ears, and extremities; thickened or rugous state of the skin; diminution of its sensibility, and falling off of the hair, excepting that of the scalp; hoarse nasal or lost voice; ozœna,—ulcers of the surface, and extreme fœtor.

Tubercular Lepra of the Middle Ages.—This is the true *lepra anæsthetica; lepra tuberculeuse* of the French; *lepra græcorum* of the middle ages. Dr. Valentine Mott says he examined this disease at Athens in 1842, and found it to resemble syphilis, though it is a "more formidable and apparently more chronic affection than the syphilis." He thinks the ancient leprosy of the Jews "the progenitor of them all;" and that on more thorough investigation, the ancient leprosy and the modern syphilis will be found to be more nearly related than has yet been supposed. Mercury and Arsenic were found the best remedies for both.—*Travels in the East*, 1842.

The Greek leprosy is a hereditary and contageous disease.* It was introduced into Western Europe at the time of the crusades. It has gradually disappeared in lapse of centuries, though it is still endemic in Egypt, Java, some parts of Norway and Sweden. It is characterized by "hard insensible tubercles, which appear upon the skin, and are accompanied by a progressive insensibility, and the loss of the voice. The tubercles appear on different parts of the skin; they are hard, rough, and numerous, and cause the loss of the hair at the places where they appear. They finally terminate in ulcers, which penetrate even to the bone, producing a caries. They also cause the separation of parts of the body,—the toes and fingers, for example, dropping off. There is also languor in the motions, a dullness of the senses, a change of the voice, offensive breath, and lethargy. It appears in three forms: 1. The squamous, or scaly. 2. The crustaceous, in which the skin is covered with crusts. 3. The tuberculous.

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* See "Good's Study of Medicine." Doane's Edition, 1840.

LEPRA ANÆSTHETICA.

It commences in spots or patches which are of a somewhat lighter shade of color than that of the adjoining surface in blacks, and of a tawny color in whites. These patches appear first in the feet, hands, legs, and arms, and seldom on the face and trunk, till a more advanced period. They sometimes seem slightly prominent, from the thickening of the several tissues of the skin; and they are rough, and apparently wrinkled, from minute indented lines; but the wrinkles do not run into the surrounding skin. The hairs, if any have previously existed in the seats of these patches, fall out or cease to grow in them. The patches are insensible, and extend slowly over the legs and arms to the trunk, until the extremities, and sometimes also the greater part of the surface of the body, are more or less affected and deprived of feeling. The affected surface is unperspirable, and neither itchy nor painful, nor swollen. As the disease advances, the pulse becomes slow and soft, and the bowels constipated; the toes and fingers are benumbed, as if with cold,—shining, slightly swollen, and stiff.

Dr. Danielssen (*Norse Magazin*, Christiana, 1852) reports 70 cases of "spedalsked," or lepra græcorum, of whom 11 had it in the anæsthetic form. Of the anæsthesia of the extremities, he says: "It is the result of inflammation of the sheaths of the nerves, indicated by excessive sensibility of the skin; and this is followed by the deposit of the whitish yellow albuminous matter between the fibrils of the nerves, compressing them, and at length producing total loss of feeling in the parts to which the nerves are distributed." When the cutaneous nerves are inflamed in this manner, "they can be felt as hardened cords beneath the skin; and where there is hyperæsthesia of the extremities, as of the hands, the ulnar nerve at the elbow is so extremely sensible that the patient almost faints with pain if it is slightly compressed." These symptoms show that the disease is an inflammatory affection; but it is a dyscrasic inflammation, having a constitutional cause, over which antiphlogistic measures and local treatment have no control. Dr. Danielssen says, there is an excess of albumen and fibrin in the blood, and to this point his treatment is chiefly directed. He restricts the patient to a vegetable diet and steam baths. Other measures have been tried with little result, as it seems that out of 70 cases hardly one was cured. Iodide of Iron was his principal dependence in the anæsthetic form of the disease.

Oxalic-acid has been extensively tried since 1851, but it had no perceptible effect, though continued for many months. One girl, aged fifteen, took 2 to 2½ drachms daily of the pure acid with perceptible effects. When 7 or 8 grains were given every two hours, the pulse in some cases suddenly dropped to 70 beats per minute. Leprosy, says Dr. Danielssen, "is a disease which, left to itself, never dies out; it follows its prey through successive generations, even to the last scion of the race."

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ARTICLE XXIX.—*Case of Softening of the Brain, its Treatment, &c.* By EDWIN M. HALE, M.D.

THE patient was a physician, aged sixty. A man of large frame, and originally possessing much strength and considerable power of endurance. He had been engaged in a laborious country practice for over thirty years.

About four years previous to my acquaintance he was obliged, by increasing mental and physical infirmity, to abandon his practice, not at once, but gradually. The first appearance of the malady was made apparent to his family and patrons, by a certain absent-mindedness, loss of memory, and an excentricity of manner. His mind became clouded, at times; his speech hesitating and slow.

Two years after this first premonition, he had an attack similar to an apoplectic siezure. This left him with partial loss of motion in the lower extremities. (I should mention here, that for several years he had been subject to very severe paroxysmal attacks of so-called sick-headache, accompanied by excruciating *pains through the brain and vomiting.*) He recovered from this attack, so much as to be able to ride and even walk over his farm, and attend to his domestic affairs, The Nux-vomica was continued every six hours, and Phosphorus 2, ten drops given in alternation with it. These two remedies were kept up nearly two weeks, with decided benefit to both body and mind; and a further continuance was ordered.

After he had taken these medicines nearly a month, the improvement apparently ceased, I suspended all medicine for a week, and then noted the symptoms.

There is now considerable *anæmia*, he can talk a little, but in a very incoherent manner, no appetite for anything but potatoes and rice; will drink nothing but home-brewed beer of the simplest character, will *reject* any other articles of food or drink. He has attempted to get out of bed several times, fell out on the floor once. Stool and urine passed involuntarily, but he will notify the attendant after the occurrence. Face pale, tongue also pale and flabby: considerable emaciation. His mental condition had improved, but there was a vacuity of expression when not aroused, yet he appeared to have a better flow of ideas. About twice a week he had attacks of severe headache, referred to the occiput and vertex, and accompanied by vomiting and stupor, after which for twenty-four hours he would appear much worse, then rally until the next attack.

His condition obviously led me to consider that Iron would be useful; Nux-vomica seemed still indicated. Certain experiences which I had had with the Citrate of Iron and Strychnine, induced me to prescribe that double salt in doses of one-tenth grain, (first dec. trit.,) three times a day, one hour after meals.

For the distressing headache and vomiting, I left Cuprum-aceticum 2, to be given every three hours for the twelve hours preceding the expected paroxysm, and until its subsidence. I saw the patient at the end of a week. He appeared stronger, had better appetite, could now be induced to take a little beef-tea, which I had ordered. The first attack of headache had been mitigated by the Cuprum-aceticum; the second had been slight, very little vomiting, but still considerable pain in the head.

After two weeks continuance of these medicines, he had improved in strength and color; appetite much better—could now eat a little meat. Had got out of bed and stood by a chair, at one time; frequently sits upon the side of the bed; no more involuntary evacuations; had made some vague inquiries about the farm business, and is, altogether, more sensible. He still has attacks of pain in the head, but no nausea or vomiting.

The Citrate of Iron and Strychnine was continued as before. It was desirable now to arrest the paroxysms of headache entirely, and to improve, if possible, the cloudiness of mind and intellectual debility. Not fearing to use compound medicines when we have good provings of their constituents, I gave the *Phosphate of Zinc*, first dec. trit., one grain one hour before meals.

The results of this treatment were in every way satisfactory. A decided general improvement commenced, and steadily continued until he could walk about the house, sit with the family at meals, converse rationally about domestic affairs, and finally, in about six weeks was able to walk out of doors and ride in a carriage. The treatment was then suspended, and I heard from him only at long intervals. His apparent recovery was a matter of astonishment to his friends, and particularly to his colleagues—allopathic physicians who had declared all alleviation out of the question, and ridiculed his resort to homœopathic medication.

About nine months from the date of my first visit, he called on me at my office, having ridden eight miles that morning. He seemed as well and vivacious as many men at his age, and showed but little of the mental and physical debility which characterized his illness.

But in the chronic, or ataxic form of brain softening, a permanent cure is probably impossible. In this instance I am satisfied the disease was hereditary, and I could give no encouragement of a final recovery.

The sequel justified my opinion, for about one year, from the attack which immediately preceded my first visit, he was seized in a similar manner—with an apoplectic fit, was found in the field, brought home insensible; lingered a few days in a paralysed, comatose state, and died. (I did not see him.)

With the results of the treatment adopted in this case, we have every reason to be satisfied, each remedy seemed to modify, promptly, the condition for which it was given; and we have no reason to suppose that anything like the same improvement would have been obtained, from the unaided efforts of the vital powers.

ARTICLE XXX.—*Surgery.—A rare case of Hepatic Abscess—over thirty pints of pus being evacuated;—seven operations performed,—death,—autopsy.* By WM. TOD HELMUTH, M.D., of St. Louis, Mo.

THE case of hepatic abscess, which I am about to record is one full of interest, inasmuch as it presents many features that differ from ordinary cases of the kind, in the number of times that operations were performed for the relief of the patient, the enormous amount of pus that was discharged, and the absence of certain symptoms which are generally regarded as pathognomonic of suppurative inflammation of the liver.

It is scarcely necessary in a paper of this kind to enter upon the anatomical description of the liver, which is certainly in a general manner familiar to all, though I confess that one must have a clear head to understand at a single reading the microscopic anatomy of the organ. We are liable to become entangled in the technicalities; what with lobes and lobules, vaginal plexuses, sub-lobular hepatic veins, and inter-lobular hepatic ducts, infra-lobular portal circulation and lobular hepatic arteries, the description is liable to become rather confused;—at least, so I found it, and always experienced difficulty in explaining to students the wonderful and beautiful mechanism of this great gland, until I impressed upon them one fact—viz.: That each lobe of the liver, constitutes in itself an *epitome of hepatic structure*, and that there are *two* sets of veins, one artery, and one duct in each lobule. That of the two varieties of hepatic veins, the first is the infra-lobular, which occupies the centre of each lobule and receives the blood from a plexus formed in each lobule by the radicals of the portal vein; the second variety being those veins contained in canals formed by the bases of the lobules applied side by side, and which veins for the most part receive the infra-lobular veins, or, in other words, in each of the minute lobules of the liver we have first an artery, (usual in all organs,) to supply the requisite sustenance to the part; second, a vein to carry off the effete blood; then, thirdly, we have blood from which the bile is extracted—contained in the portal vein, the secretion being carried away, or received, fourthly, into the ultimate ducts of the acini, and following these channels to the larger biliary canals. The minute anatomy of the liver is a most wonderful creation of nature, and its study will repay any one who undertakes it in the right spirit.

Diseases of the liver are not of very infrequent occurrence, but I candidly believe, that they will proportionably diminish as people begin to understand a little more true physiology. In this Western country the poor liver is a perfect pack horse; the first word that a child pronounces is "*bilious*;" men come to you with back ache and tell you they are bilious; women with the stomach-ache say they are bilious; Johnny has cough, and his liver is torpid; and Julia is constipated because her liver "won't act." It is a bilious country, and the bile and liver, and the liver and the bile, are first to be "*acted on*" in every case of disease, whether toothache or tetanus, colic or typhoid fever; and what is the result of such ideas?—ideas, that are instilled into the hearts of the little ones, and grow with their growth, and strengthen with their strength. Ah! The result is too palpable: viz., to find something to stimulate the liver, and *Calomel* is introduced; blue pill is taken or prescribed, and constitutions are ruined, health is banished, and as the pale cheek of disease comes slowly on, still the cry is for more mercury, more stimulus for the liver. Every Doctor who has seen six months practice knows this, every layman who has watched his own or his neighbor's children, is perfectly aware of the fact. I recollect hearing old Dr. Meigs once say in a lecture to his students, that if he held at that moment the last particle of Mercury in the world, and no more could be obtained, that he would destroy the medicine, as he believed that although certainly one of the most frequently benefical agents in the materia medica, yet its abuse had greatly exceeded its curative results. Dr. Abercrombie says, "in the liver diseases of this country, Mercury is often used in an indiscriminate manner, and with very undefined notions as to a certain specific influence, which it is supposed to exert over all the morbid conditions of this organ. If the liver is supposed to be in a state of torpor, Mercury is given to excite it, if in a state of acute inflammation, Mercury is given to moderate the inflammation and reduce its action." There can be no doubt that the constant use of Calomel and other preparations of the mineral have and still will continue to induce many abnormal derangements of the liver, and to my mind, suppurative inflammation of the organ is certainly one of them.

On the seventeenth day of July, 1862, I was called to the "Sisters' Hospital" in this city, to visit a gentleman, who had been ill there for some time, and having undergone the usual routine of the old school was anxious to ascertain, if the new gave any better prospect of success in his case. I found him, though a man of large frame, considerably emaciated with a hard swelling, not discolored, on his right side extending from beneath the cartilages of the ribs to a short distance below the umbilicus and filling up the whole epigastric region. The tumor was very hard and was moveable to such an extent, that I at first believed it to be unconnected with the liver; there was no pain, no sensitiveness, no cough, but little fever; in fact, no very marked symptom excepting anorexia with the emaciation, and a feeling of numbness with pain in the left leg. It is well to recollect the latter symptom, for future diagnosis. This pain continued to a greater or less extent to the termination of the patient's life, and was exactly similar in character to that described by authors as being complained of in the shoulder, by those suffering from suppurative inflammation of the liver. Indeed, this peculiar suffering is often so remarkable that it at least deserves a passing notice. Budd* writes: "Pain in the right shoulder is indeed far less frequent in cases of abscess of the liver than is generally imagined, but it existed in five out of the fifteen cases I had to treat at the Dreadnought, and in some of these cases there could be no doubt, that the pain in the shoulder was dependent upon the disease of the liver." The same author states that of five patients treated by

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* On Diseases of the Liver, p. 14.

M. Louis, not one experienced pain in the shoulder, but that Annesly believes that pain in that locality is a sure indication that disease is situated in the right lobe. Some authors have even stated, that when the pain exists in the right shoulder, the abscess is situated on the *convex* surface of the *right* lobe. This peculiar suffering is unaccompanied with heat or swelling, and is not much increased by pressure, although it may be and is often aggravated by compression of the liver. My patient, as has been before observed, had not this pain, but complained bitterly of his left leg, particularly about the knee-joint. In fact, we may certainly assume that these sufferings are purely sympathetic, whether they are referred to the shoulder, the knee, or to the *right rectus muscle*, which latter is considered by Mr. Twining, and other surgeons of India, as a pathognomonic indication of deep-seated hepatic abscess.

Having removed the Iodine which was applied to the swelling, I substituted compresses wetted with tepid water to the part, and knowing that the patient had for some time been under the influence of powerful mercurials, I prescribed

℞ Acidi-nitric., 3. gtt. x.
Aquæ-fon, ℥ij.

a tablespoonful every three hours, together with an acid foot-bath, prepared with Nitre, Muriatic-acid and hot water. In two days, although there was no perceptible change in the swelling, the general condition of the patient was improved; and, believing that he had received enough Mercury to perceive its primary and perhaps poisonous effect, yet that its curative action might be developed, I ordered

Merc-viv., 6, pulv. xx.

a powder morning, noon and night. This treatment was continued for some time,—the general health improving, but the other symptoms remaining stationary; at this juncture I requested Dr. Temple to see him with me in consultation, and we prescribed, for the presenting symptoms,

Conium-mac. 30. A dose at bed time.
Arsen.-alb. 30. A dose in the morning.

He improved slowly under this treatment, but I was convinced that in a private room at the hospital the air was not of sufficient purity, and, therefore, advised his removal not only from the institution, but from the city. This was accordingly done, and medicine given to him to last a number of days. On the 24th day of August, when we visited the patient, there was a manifest change in the tumor; it was larger, not so circumscribed, was causing dyspnœa, and fluctuation could, by very careful manipulation, be felt below the cartilage of the first false rib.

During all this period the questions that forced themselves upon our minds were first, as to the cause of this disease, and secondly, the propriety of opening the cavity of the abscess. There were, be it remembered, in this case no well-marked symptoms of suppuration, as would naturally be expected, during the formation of a large quantity of pus—indeed, from the first there was an absence of many of these characteristics which belong to the hepatic abscess, and which Gross* describes as "severe aching, gnawing, throbbing pain in the hypochondriac and scapular regions, marked enlargement of the liver; great embarrassment of breathing and inability to lie on the left side, accompanied by violent rigors, alternating with flushes of heat, excessive gastric irritability, and a muddy, jaundiced state of the eye and skin. As the matter accumulates and approaches the surface of the organ, it excites inflammation in its peritoneal covering, causing it to adhere to the wall of the abdomen." There could be, however, no doubt as to the true character of the disorder, but the diagnosis was of deep-seated matter, affecting probably the substance of the liver and not its capsule, still making the disorder of more grave character.† Should the pus be evacuated artificially, or should it be allowed to discharge itself? It is well known that there are many points of exit, through which hepatic pus may pass, and patients have been known to recover after the rupture of large hepatic abscesses; on the other hand the operation is attended with some risk, and not many have survived its performance,—I mean recovered their wonted health.

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* Operative Surgery, Vol. II., p. 795.

† "Suppurative inflammation of the liver must be considered as effecting either the substance of the liver or its capsule, the former is, in temperate climates, rather a rare affection."—Jones and Skeivering's Path. Anat., page 510.

Again, we know that many at once succumb to the inflammatory action engendered by the purulent matter from the liver escaping into other parts of the body.

It is interesting to observe how many points have been the site of rupture of large hepatic abscesses. Cragie* says that besides the abscess discharging into the abdominal cavity, the pus may pass through the air-cells into the bronchi, by the adhesive process into some part of the intestinal canal, the stomach, transverse arch of the colon or even the duodenum, and Rokitansky,† with his usual system and accurateness, mentions several other outlets, as into the gall-bladder, or one of the larger branches of the hepatic duct, through the diaphragm into the pericardium, and even into large vessels, as the vena cava. He mentions a case in which a communication was established between a hepatic abscess, and the vena portæ and the duodenum.

Taking, therefore, all these circumstances into consideration, and the great danger of allowing a large collection of pus to discharge itself, we, without very long deliberation, came to the conclusion to let out the fluid,—although the operation itself is not one that is always successful, or free from danger. Mr. Budd‡ says: "Many physicians have recommended that abscesses of the liver be opened; but there is much danger in the practice." He then mentions several sources of danger, first of which is the difficulty of distinguishing a hepatic abscess from a distended gall-bladder, the puncture of which would of course prove almost immediately fatal to the patient. Now, although Annesly and Dr. Stokes allude to this difficult diagnosis as a source of great danger, and although cases of this kind are upon record for our information, yet so far as my own experience goes, I should judge that the diagnosis between the two disorders could be sufficiently made out to prevent such a blunder. Another hazard is much more to be dreaded. On this point Budd‖ writes: "A source of far greater danger is the circumstance, which has been before noticed, that the inflammation which leads to abscess is often confined to the substance of the liver, and does not involve its capsule. As the abscess approaches the surface, adhesive inflammation of the peritoneum immediately above it usually takes place, and a small quantity of lymph is poured out, which causes adhesion between the wall of the abscess and the parts with which it is brought into contact. These adhesions are often of very small extent; sometimes they do not form at all, and as I have before remarked, the abscess bursts into the cavity of the peritoneum, causing speedy collapse and death. By opening an abscess of the liver before adhesions have formed, we may be directly instrumental in bringing on this fatal issue; the pus may escape into the cavity of the peritoneum, and the patient die in a few hours, obviously in consequence of the operation." Another danger is also encountered in allowing air to enter the cavity of the abscess, and decomposition of both air and pus results, and fresh inflammatory action is developed.

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* Pathological Anatomy, 859—860.

† Pathological Anatomy, Vol. II., p. 108.

‡ Diseases of the Liver, p. 123.

‖ Loc. cit., p. 123.

These considerations being fully recognized, after due consultation, it was deemed proper to open the abscess, particularly as the patient was suffering intensely from oppression of breathing and other symptoms, which appeared to demand immediate relief.

Accordingly on the 25th day of August, Dr. Temple and myself visited the patient, and after careful examination and manipulation detected fluctuation below the second false rib. At this spot I introduced a trocar, and passed it about half the depth of the instrument, but no matter followed its withdrawal; it was again inserted into the canula, the instrument pressed up to the guard—the whole length of the canula; immediately the pus began to flow, and a little over five pints were evacuated. The precaution had been taken to make a valvular opening, to prevent the admission of air when the canula was withdrawn. It is interesting to study the true character of this matter. It was very thick, and of a reddish chocolate color, having also that peculiar heavy and nauseating odor which we find in the dissecting-room during the examination of decayed liver; occasionally there was mixed with this a fluid which evidently was unadulterated pus.

Upon thinking of the color of this pus, I was for a time rather puzzled; because, upon consulting some authorities upon the subject, I found that the suppurative process in the liver generally ended in the formation of the ordinary purulent matter. Budd* says: "The matter in a hepatic abscess is usually *white* or *yellowish*, and is *free from odor*, unless when it is in close proximity to the lungs, where it sometimes becomes decomposed and fetid from the admission of air." He then goes on to state, that many of the older writers described the pus of abscesses of the liver as being generally red or claret colored; but, according to his experience, such observations are incorrect. It is well to bear this statement in mind, in order to explain wherein Mr. Budd is right, and wherein also the "old writers" are perfectly correct. This will appear from the following facts. Rokitansky† states: "In reference to its contents the hepatic abscess presents considerable differences at different periods, depending in part upon the communication established with the biliary vessels;" and "a large abscess of long standing invariably contains pus, mixed with a considerable amount of bile, which arises from a *communication which is established between the larger gall ducts.*" Jones and Skeivering‡ also have the following, which is worthy of remark in this connection: "When an enlarging abscess reaches a hepatic duct branch, it does not set up inflammation in its walls and cause its obstruction; but it ulcerates through its tunic, and establishes a communication between the efferent channel and its own cavity. Hence it occurs that the pus contained in large abscesses is always mingled with a considerable amount of bile, while that of the smaller or recent abscesses is almost pure."

From these facts, we would draw the deductions that in the majority of cases examined by Mr. Budd, the abscesses were recent and of rather limited extent, while the observations of the older authors were probably based upon the appearances derived from large collections of hepatic pus. In the present case, the admixture of the bile no doubt was the cause of the peculiar color of the liquid, and the explanation is readily found, as mentioned in the above quotations, in the destruction of the walls of the vaginal hepatic ducts.

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* Suppurative Inflammation of the Liver, p. 107.

† Pathological Anatomy, Vol. II., p. 107.

‡ Pathological Anatomy, p. 510—511.

After the evacuation of a little over five pints, the very weak condition of the patient induced us to withdraw the instrument. The medicine then prescribed was *Arsenicum* in solution once in four hours.

August 26th.—Passed a very comfortable night; no pain in the wound or in the region of the abscess; a fair appetite, pulse about 98. Patient cheerful, and expresses his satisfaction at the operation. Continue Arsenicum.

August 27th.—Not much sleep, restless and feverish; skin hot and dry, not much enlargement over the cavity of the abscess. Prescribed Chamomilla and Arsenicum.

August 28th.—Better than yesterday; we concluded to let out the remaining quantity of the pus, and therefore with a valvular opening entered the trocar on the margin of the quadratus lumborum about four inches lower down than at the preceding puncture. The instrument was pushed as far as it could be made to enter. The discharge was not so thick, nor quite so highly colored, although it presented many similar characteristics to that evacuated on the 26th. About the same quantity was drawn off. The patient was relieved very much by this operation.

August 29th.—Passed a good night; prescribed Hepar and Arsenicum, two doses of each daily, applied water compresses to the side, ordered slight stimulus, wine-whey, broth, &c., and left him for some days with the understanding that I was to hear daily of his condition.

We may here pause for a moment, to speak of the various methods that have been devised for the opening of these abscesses, and to understand their rationale we must recollect the dangers that are to be encountered in the operation; these are mainly two, the first being the risk that adhesion has not taken place between the peritoneum and the wall of the abscess; and that by the puncture an opening may be made that would allow a certain quantity of pus to escape into the cavity of the peritoneum, thereby causing acute inflammatory action and speedy death; and secondly, the danger of the admission of air into the cavity, thereby setting up decomposition of the pus already formed, and exciting the pyogenic membrane lining the abscess to fresh production of purulent matter. To obviate the first difficulty, viz., the discharge of pus into the peritoneal cavity, the following process has been devised by Dr. Graves, and is recommended by other surgeons, viz., to make free incisions through the muscular parietes of the abdomen, and to press to the bottom of the wounds thus made, pledgets of lint, thereby exciting adhesive inflammation between the reflected layer of the peritoneum and that covering the abscess, thus making sure that no pus can enter the abdominal cavity after the puncture of the abscess. The admission of air into the cavity can also be prevented, first by making a valvular opening, or by having screwed to the canula a bladder with a stopcock attached, (as recommended in the puncture of the thoracic walls,) by turning the valve the air is prevented from passing through the canula, and the bladder may be emptied at pleasure. Taking, however, the precaution of drawing the integument well over the spot at which the puncture is to be made, and holding it firmly in that position while the trocar is entered obliquely, it will readily be perceived that so soon as the canula is withdrawn, the skin by its natural elasticity will retract to its usual position, and thus effectually close the opening.

After the last operation was concluded, a depression in the right hypochondriac region existed, about the size of a child's head.

Sept. 3d.—Sent for in haste, found the patient exhausted, suffering from oppression, and eagerly demanding another operation. Passed the trocar at a point about midway between the sites of the other operations. Drew off five pints of purulent matter, of much the same appearance and odor. Great relief experienced by the patient.

Sept. 4th.—Better, has a little appetite; complains of great prostration. Ordered Silex and Arsenicum, slight stimulus, &c.

Sept. 12th.—Again necessity compelled us to perform another operation. Four pints of thin and dark-colored matter were evacuated.

Sept. 13th.—Much prostrated, no sleep; appetite gone; great concavity in the affected side.

Sept. 19th.—At the urgent request of the patient and family, the fifth puncture was made, and four and a half pints of pus came away.

About this period, the patient began to sink more rapidly, and having some very important pecuniary business to transact before the fatal termination of his disease, he desired to be removed to town, to be more convenient to his lawyers, who were necessarily in frequent communication with him in reference to his estate.

Sept. 26th.—The sixth puncture was made, and as the pus found exit, a horrible fœtor announced the rapid decomposition of parts. Again four pints of this fluid were evacuated.

The patient was now emaciated to a skeleton, he complained so bitterly of his bed being "so hard," and bed sores making their appearance in different parts of his body, that I had him placed on a water-couch. The inexpressible relief that he found from this luxury of the sick room, was as gratifying to myself as to immediate relatives and friends.

Oct. 4th.—Again he demanded another operation to relieve his anguish. The last two I had performed myself without any assistance, owing to the unseasonable times that generally had to be selected for making the puncture; at this, the last operation, Dr. Fellerer assisted me. The trocar was entered about the same locality, taking care as usual to avoid the old cicatrices, and three pints of the same fœtid matter drawn off.

From this time, he slowly sank, without pain and lived for three days, when he died in the most quiet manner.

The *autopsy* was made in the presence of Drs. Temple, Luyties, and Comstock. Before opening the body we evacuated the abscess, by a large incision through the quadratus lumborum muscle, I think that quite half a gallon of matter passed into the bucket. It was extremely fetid. Upon exposing the lungs, they were found pale and atropied, with slight tendency to tuberculous deposit on the apex of the right lobe. These were of long standing. The heart was smaller than natural, the pericardium somewhat thickened; the fluid about normal quantity.

There were some adhesions of the pleura on the left side of the thorax.

The stomach was healthy; the spleen enlarged and congested; the kidneys normal.

The liver was a perfect pathological curiosity. It extended far below the umbilicus, but did not encroach very much more than ordinarily into the left hypochondriac region. The enormous swelling was in the right lobe. A most perfect and beautiful adhesion had taken place between the parietal peritoneal coat of the organ and its reflected portion, along the usually free and sharp edge of the right lobe. This provision of nature, to prevent the pus from escaping into the abdomen, was wonderful to behold.

The cavity—an enormous one—was confined exclusively to the right lobe of the liver. The thinnest wall being inferiorly, and the thickest laterally. This appearance immediately accounted for the depth to which the trocar had to be passed to reach the cavity of the abscess. The left and other lobes of the liver did not present any appearance of suppurative inflammatory action, although all were somewhat hypertrophied. The weight of the whole mass after it had been thoroughly cleansed and divested of appendages, was ten pounds and a half.

Thus, I believe, is recorded a remarkable case of hepatic abscess, wherein over thirty pints of matter were drawn off, and seven operations made.

To estimate the quantity of matter in its proper light, I will give one more quotation from Budd: "Abscesses of the liver sometimes attain an extraordinary size. In one instance, I estimated the quantity of matter in an abscess to be two quarts. A case is related by Annesly, in which an abscess of the liver contained ninety ounces of matter, and Dr. Inman, of Liverpool, has sent me an account of one still more extraordinary, that fell under his own observation, in which the quantity of matter was found by measurement to be thirteen pints."

I would here also remark, that the liver which I have now carefully preserved among my preparations, I find, much to my sorrow, appears to be decomposing on the thinner or concave margin of the abscess; although I have used both alcohol and corrosive sublimate to harden the structure.

ARTICLE XXXI.—*Differential Pathogeny of Malaria from Poisonous Effluvia of Animal Origin, including the Cadaveric and the Fœcal.* By E. M. LAZARUS, M.D., of New-York.

EXAMPLES abound of the pernicious influence of exhalations disengaged from dead animal matter, altered by the putrid fermentation. Diarrhœas, dysenteries, and malignant fevers attacked a great many persons at the exhumation of the corpses interred at the cemetry of the Innocents. Grave-diggers are exposed to the same dangers if they proceed incautiously to the exhumation of corpses long ago interred. De Lassone* has mentioned with details an epidemic malignant fever which raged in 1749 in the House de l'Enfant Jesus, and which ceased as soon as they covered with lime and piled earth over the ditch near the establishment where a number of cows had been interred at a very slight depth. Forestus, Ambroise Paré, Maret, Ramazzini, Fourcroy, Requin, Chevallier, Guérard relate facts establishing the fatal action of cadaveric emanations. In the discussion which this question excited in 1828 at the Academie de Médicine, Chomel, Bricheteau and Moreau sustained the affirmative. Bailly, Warren of Boston and Parent du Chatelet have exaggerated, if we may so speak, the innocuity of putrid exhalations. Their danger is not proportioned to the intensity of their stench, and so long as decomposition takes place in the open air and is not complicated with any infections principle of animal poison engendered in the living organism, the workmen who habitually breathe such effluvia remain in fair health. In 1814, after the battle of Paris, four thousand horses lay rotting on the field during fifteen days in a temperature of more than 15° c. Those who were charged with the duty of removing them were not incommoded. Even the garçons d'amphithéatre who handle corpses in the dissecting rooms, &c., are not an unhealthy class, and the power of toleration of the effluvia of sinks, privies, &c., of which men are capable, is hardly surpassed by that of the carrion crow. Coarse and robust organizations only, it is true, will have accepted such spheres of labor, and as they are well paid, their nourishment will be substantial.

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* Mem. de la Société Royale de Médicine. 1776. T. 1.

But let these functions be exercised in a confined air, and they immediately become lethal. Or bury the corpses, and the stale exhalations that filter through the soil and rise from their graves will carry with them typhus and malignant dysenteries and decimate camps or villages.

In all the facts of immunity mentioned by Parent du Chatelet and Warren, there was dissipation of the animal effluvia in the free air; all the facts opposed to them bear upon putrid effluvia in confinement. Gravediggers, Fourcroy and Orfila tell us, fear only the vapor that escapes by rupture of the abdominal integuments, a vapor that can suddenly strike them down, while at a certain distance they experience only faintness vertigo, nausea, tremblings. Du Chatelet himself recognizes that the workmen employed in cleansing the Amelot sink were in general seized with divers opthalmias and sudden blindness, with headache, vertigo, syncope, courbatures, gastric derangements, colics, jaundice, angina, furuncles, intermittent fever, asphyxia, delirium, &c. These phenomena, which well-directed cares arrested at the outset, evidence a miasmatic intoxication varied in its reactions.

To intoxication by cadaveric effluvia, considered apart from those special infections which cholera, typhus and other malignant epidemics concentrate in the human viscera, continuity of action is usually necessary.

So, observes Michel Levy, if an army be encamped during two years near the cemeteries of the ambulance, where inhumations have been superficial, on a field strewn with ill-buried carcasses, using waters that filter through a soil rich in the loam of human putrefaction, you will see arise in it the typhus of the Crimea, while gravediggers and other workmen employed habitually amid such effluvia, but who do not sleep in the quarter and who absent themselves on their holidays, may enjoy a fair average of health.

Parent du Chatelet draws a practical distinction between fœcal and cadaveric emanations.

"If heaps of putrified animal matters diffuse in their immediate neighborhood, a stench far more noisome than fœcal matters, this fœtor is dispersed and melts away more readily in the atmosphere than what proceeds from great accumulations of the latter. The peculiar fœcal stench will be recognizable at the distance of miles, while the cadaveric is hardly sensible at that of a few hundred yards. The difference is easily explained by the greater quantity of Ammonia contained in fœcal matters, for Ammonia is the vehicle of odors which it develops, and to which it gives wings. The privies of camps are in general badly located and badly attended to, hence no camp is without its endemic dysentery.

M. Girardin (Traité de Chimie) has grouped in the two following series the results of decomposition:

The first, of organized matters chiefly animal, abounding in the compounds of azote, phosphorus and sulphur:	The second, of organized matters, chiefly vegetable, containing small proportions of those compounds:
First Category: matters easily putrescible.	*Second Category: slightly and slowly putrescible.*
Gas, Carbonic-acid.	Gas, Carbonic-acid.
Carbonated Hydrogen.	Carbonated Hydrogen.
Azote, much.	Azote, traces.
Sulphuretted Hydrogen.	
Phosphoretted Hydrogen.	
Water.	Water.
Acetic-acid.	Acetic-acid.
Ammonia.	Oily substance.
Small earthy residue, composed of salts, of carbon, oil and ammonia.	Black residue, in which carbon predominates.

The sulphuretted hydrogen and phosphoretted hydrogen disengaged during the first period of the putrefaction of the abdomen of animals, constitute a mephitism, the danger of which no one denies, but besides the asphyxiating and toxical gases disengaged by the putrefaction of organic matters in the two kingdoms, there are the animal miasm and the vegetable miasm or miasms. The former gives rise to malignant fevers of the putrid or typhic variety, the latter to palustral fevers, two groups or morbid states, distinct at equal degrees of intensity, as the yellow fever from the typhus of goals, revealing a different essence and tendency; the animal miasms to the dissolution of the blood by the diminution of fibrine and hæmorrhages, the vegetable miasms to hydræmia, by the reduction of the globular element and of albumen.

Convalescence from paludal cachexia is not incompatible with an abode amid the effluvia of animal putrescence. M. Dardieu has cited a case in point,* that of M. Chevreux, inspector of Bondy, who recovered from the malaria of Sologne amid the stenches of great shambles.

The diseases engendered by animal poisons constitute a series of the following groups, commencing from the most individuated and proceeding to the most diffusive.

Group 1. The venoms proper to certain reptiles and insects, not reproducing themselves identically in the body of their victims.

Group 2. The venoms which reproduce their kind and are indefinitely transmissible by inoculation, viz. rabies, glanders, pustule maligne, vaccinia and variola, syphilis, comprising both the constitutionally infecting and the simple chancre, itch, tinea, herpes circinatus, the contagious ulcer of Mozambique.

Group 3. The infections whose contagion does not depend upon inoculation or its equivalent: viz. rubeola, scarlatina, pertussis, sweating sickness, hospital gangrene, typhus, erysipelas (sometimes), diphtheritis, true croup, angina maligna, confluent thrush (mignet phthisis?), cholera (sometimes), plague (sometimes), yellow fever (sometimes), dysentery (sometimes), particularly the typhoid variety (see Watson).

Several types of the third group, to wit, the four last mentioned form a common or transition-group between the animal and vegetable or mixed miasms, originating as they do epidemically in malarious conditions, then reforming a concentrated sphere of infection in the living animal body, so that they are propagated from victim to victim almost like the true contagions, from which it becomes a matter of close observation to distinguish them. They should be regarded as contagions, of which the air is the medium of transmission.

These infectious contagions, ensphered in a patient or in an assemblage of patients suffering with the same malady, are mobile, and follow the direction taken by their victims. In seizing other individuals, they reproduce the type whence they sprung; isolated at a distance from their sphere of generation and where the local conditions are not similar, they become extinct. Unlike the inoculable contagions of the second group, their capacity of personal communication is dependent upon the conditions of a local sphere. So when the epidemic season is past, or at an altitude where the atmosphere ceases to favor their evolution; plague, yellow fever, cholera, &c., cease to be transmissible. Within the atmospheric and local conditions which favor them, *importation* is their ordinary means of diffusion.*

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* Thèse de conconis: voiries et cémeteries.

As soon, says Michel Lévy (Hygiène Publique), as the number of patients exceeds the proportions of the atmospheric cube, for a hospital, we witness a grave modification in the aspect as well as in the course of diseases and unaccustomed complications arise such as gangrene, phlebitis, erysipelas, and accidents of purulent resorption. The vitiation of the blood is denoted by ataxic phenomena, stupor, prostration, a typhoid stamp impressed upon affections the most varied in their seat as in their initial form. The encumbrance of beds is no stranger to the extension of erysipelas, croup, whooping cough and of ophthalmia among the little ones at l'hospital des Enfans. Whenever at the hospital of Péra, opened at Constantinople for the French troops of the Crimea, the number of beds was raised above eleven hundred, septicemic accidents multiplied to such a degree as to interdict surgical operations, always followed as they were by fatal results. The glanders is developed in stables of small size, damp and ill ventilated; perhaps their infected air alone may suffice to communicate to man this terrible disease, usually propagated by contagion. The atmosphere of great cities approximates to the infection of a crowded ward by the incessant effluvia of every description, by the height of their buildings, the narrowness and sinuosity of their streets, by their filthy sewers, by the daily dissipation of the excreta of immense populations, the refuse of vast markets, &c.; what more is necessary to determine a perpetual imminence of miasmatic epidemics? During the cholera, the central quarters of Paris with their narrow and sunless streets furnished an exaggerated proportion of victims. Glasgow with all its commercial prosperity is a prey to the increasing mortality of typhoid fever. The statistics of Rob. Corvan show

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* Mr. Gendron, in his analysis of village epidemics, has remarked, that whenever the dysentery was rife at his place of residence, it had been brought there by laborers returning from the harvest at la Beauce. At Marseilles and Toulon, says Michel Levy, keepers of the hospital magazines fell victims to the typhus after handling the clothes of typhic patients from the Crimea.

While it is often impossible to discriminate infection from contagion, facts prove with irresistible evidence the translation of cholera, of cerebro-spinal meningitis, of typhus, of yellow fever, of eruptive fevers, &c., by the intermedium of troops traversing great stretches of territory. It will suffice for me to remember that in June, 1854, the boat *Alexander*, which carried me to the East, having taken on board soldiers during their incubation of cholera, carried this disease from Marseilles, where it was raging, to the Piræus, where there had not been a single case, and to Gallipoli, where it was yet unknown.

On the other hand, so definitely limited are the spherical conditions of transmission, that Mr. Mélier's extensive and laborious researches in view of the organization of the *international sanitary conference* (1852) have led him to the conclusion, that not in any one case have the pestilential diseases whose origin it has been possible to ascertain, been imported by merchandise (plague of Marseilles, 1720, plagues of Malta, Corfu, Noia, of the two Sicilies).

in 1835: 6,180 attacked, 412 deaths,
„ 1837: 21,800 „ 2,180 „

in the ratio to its whole population of one to fifteen, and one to ten. Can we be surprised that the cities of former times so dirty, low, damp, tortuous, and cramped were so often visited by pestilential epidemics? Have not the great barracks, and other buildings, erected by Europeans on the coasts of the Antilles and of the United States, framed for the yellow fever an epidemic sphere? For previously it had been compounded in its sporadic form with the remittent fevers of the country.

Disease is the rupture of harmony among the parts of an organic whole. Man is the chief individuation of the Earth's organic life. Malarious influences incompatible with the health of man, are then expressions of telluric disorder. The evidence of inverse solidarity, by direct participation of individuals, or of families and neighborhoods in the disorders of their common sphere or local habitation, is afforded in the most general sense by paludal fevers, with their related types of neuralgia, and their contrasted or substitutive malady, pthisis pulmonalis.

Then in regular progression, becoming more limited towards personal individuation, the spherical miasms are manifested as plague, and yellow fever, and cholera for hot climates, typhoid and exanthemous fevers for temperate or cold regions.

The leprosies and syphilitic diseases range in all climates. At one end of the scale we have the most intense but personally limited contagions; at the other, local miasms not sufficiently concentrated to be communicated from person to person; between the two terms, these infections, which in their most virulent types become practically contagious, either with or without the inoculation of a specific virus. Such is that form of syphilis called Malady of the Bay of St. Paul; see Boudin "Géographie et Statistique, Médicales," T. 11. P. 563. Diction. des sciences med., t. xxx. P. Rayer, Mal de la Peau, t. III. p. 838.

Puerperal fever is equally propagated by infection and by contagion. The latter fact which has been much discussed, seems to be established by facts like the following, which was brought before the French Academy of Medicine on the 7th of January, 1851, by Mr. Arneth.

The Maternité Hospital of Vienna has existed since 1784, and as its halls were always crowded, a second division had to be established in 1833. The new construction was occupied by the ancient clinique; the new clinique was installed in the old building which is separated from the newer part only by a door. The mortality in the two cliniques was at first nearly equal. It was decreed in 1839 that all students in medicine should henceforth attend the first clinique, while the midwives should only be admitted into the second. As the mortality in the Maternité was always much greater than it generally is among lying-in females in the city, inquest was made from time to time into its causes and means of prevention. Every one was struck with the great difference which some years after the enlargement of the hospital had constantly occurred between the results obtained in the first clinique held in the new building, and in the second clinique held in the old building. There died,

	in the first,	in the second,
in 1839	5.4 per hundred	4.5 per hundred.
„ 1840	9.5 „	2.6 „
„ 1841	7.7 „	3.5 „
„ 1842	15.8 „	7.5 „
„ 1843	8.9 „	5.9 „
„ 1844	8.2 „	2.3 „
„ 1845	6.8 „	2.0 „
„ 1846	11.4 „	2.7 „

The cause was supposed to have been found in the too frequent touching of pregnant women, practised by the students, and the number permitted to attend in the first clinique, was reduced in consequence; but the mortality, although less through that winter, rose the next spring, when fifty-seven women died in childbed during the month of April, and thirty-six in May. M. Semelweis who was named chief of the first clinique, assured himself that no want of ventilation nor difference of treatment existed to account for its greater mortality. He was struck with the fact, however, hitherto overlooked, that while the midwives never assisted at autopsies, and while the chiefs of their clinique rarely appeared in the dissecting room, the pupils of the first clinique were either physicians preparing themselves for special practice as accoucheurs and who carried on at the same time anatomo-pathological studies, or foreigners who assisted at the lessons of Prcfessor Rokitansky. All pursued anatomical labors, and were present at eight or ten necropsies every day. They often made themselves, the dissections; at other times they assisted at lessons of pathological anatomy, where all the diseased parts, even those of the intestinal canal, were examined and passed from hand to hand. Besides the chief of the obstetric clinique carried on a course of obstetrical operations on the dead subject, in which his pupils were practiced, and after these prolonged manipulations of the corpse, they often went direct to the Maternité to assist at accouchements, inoculating doubtless cadaveric atoms upon the genital organs of the women whom they touched.

Liquids in putrefaction, either by the linen used or by parts of the placenta, or instruments badly cleansed, and the atmosphere itself impregnated with such atoms, are regarded by Mr. Semelweis as the most frequent cause of puerperal fevers, while the most frequent mode of propagation is the touch by hands saturated with the miasm of corpses. It was decreed, towards the end of May, 1847, that no one should henceforth be admitted into the halls of the Maternité, whether he came from the autopsies or not, without having dipped his hands into a solution of chloride of lime, kept in the lying-in room, and also made use of a nail brush. This measure had been carried out only a month, when the mortality fell 6 in 300, for June; for July, 3; for August, 5; for September, 12; for October, 11; November, 11; December, 8; the number confined always slightly exceeding 300 per month. The proportion of deaths for the year was reduced to $\frac{1}{87}$, while in the clinique of the midwife, it was $\frac{1}{76}$. During more than three months following, while Mr. Arneth remained at Vienna, the same precautions being observed, the mortality remained nearly equal in the two cliniques. At Kiel, Professor Michaelis, whose obstetric clinique had been closed on account of the ravages of puerperal fever, has obtained from the chlorurretted solutions the same security, and the only case since observed by him might be traced to the use of a badly-wiped sound. Here we have a contagion, yet of which specificity cannot be sustained; it is then a link of transition between the specific viruses and the infections. Cholera resembles it very closely in this respect, while its sphere of infection is general, instead of being confined to a certain state of the constitution, to wit, the puerperal. The plague, if judged by its historic reputation, has probably, in some epidemics, been communicable through the clothing, &c., of patients, in others not at all so.

The noncontagionists* admit the transmissibility of the plague in its epidemic foci by the miasms which the plague-stricken exhale; it is insisted, however, that its transmissibility is in ratio to the intensity of the epidemic, greatest in the first month or period, and feeble in its third. For the black plague which ravaged Europe in the eighteenth century, the duration was rarely anywhere over five months, and the longest period mentioned is six months (Chenot Tract. de peste. Vindebonœ, 1769). The most intense plagues of Egypt, commencing in November, have rarely exceeded four months, or the lighter epidemics, eighty days. This period expired, there is no fear of contagion; no distinction is made between the clothes worn by those who have died of the plague and others. It is at Fit-Basar, says M. Brayer (Neuf ans à Constantinople, T. II., p. 354) that "the Jews fill their shops with garments of all sorts worn by mussulmen and raïas, cheap and abundant in proportion to the mortality of the recent plague, and which no one has ever dreamed of disinfecting. The galleries are crowded with customers, who pass from stall to stall, handling everything. Here, in 1812, were collected the spoils of 150,000 victims of that epidemic. What was not sold then, was heaped up in small, dirty, dark, unventilated magazines, and brought out for sale the next year. And yet cases of plague, numerous still in the middle of December, had almost ceased by the end of this month. The Jews, who ought all to have perished, according to the imaginary laws of contagion, lost fewer in proportion than the Greeks, who have great fear of the contagion of the plague." The Mussulman states, during the sixteenth and seventeenth centuries, were less visited by the plague than was European Christendom. Turkey in Asia and Syria escaped entirely. Egypt was visited but once in the sixteenth and twice in the seventeenth century, while France suffered fourteen times in the sixteenth and eleven times in the seventeenth. While the germ of the plague knows, like the locust, its appointed times and seasons, it is equally restricted to certain organic spheres, or to organisms predisposed to its evolution by their local habitudes, irrespective of the spot upon which the disease breaks out in them.

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* See Prus. Rapport à l'Acad. Roy. de Paris, 1846, p. 104.

Diemerbrock mentions of the family Van Dans, of Nimeguen, that "the father, fearing the plague for two of his children, sent them to Gorcum, in Holland, while a third remained with him in Nimeguen. The two children at Gorcum, where there was no plague, remained perfectly well for three months, but were suddenly then stricken down, and died of the plague, nearly at the same time as did their father and his third child at Nimeguen."

Evagrus, in speaking of a plague which was epidemic at Antioch, remarks it as "truly astonishing that when the inhabitants of a city afflicted by the plague were absent, and in places where it did not exist, these strangers alone were attacked."*

Procopius (De bello Persico) speaking of the plague of 542, says that it "infected with its venom in a healthy city, persons born in the sites which it was ravaging. Senac (Traité de la Peste. Paris, 1744) tells us that the English were attacked in foreign countries by the plague, at that period when it prevailed in England; while on the other hand, Joannus Utenhovius, cited by Schurrer and Boudin, remarks that "in a plague that raged in Copenhagen, the English, the Dutch and the Germans escaped."

The organic predispositions of the plague are decided for certain races, irrespective of previous habitation. In May of 1841, says Mr. Penay (report to the council of health at Cairo) "a Nile packet boat brought down to Nadder, where the plague was raging, fifteen black slaves, most of whom sickened and some died during the next twenty-four hours. Their master left with the rest of them; but they all perished before landing at Caffre Regard. Neither the sailors nor passengers who filled this bark, and were all pell-mell with the plague-stricken, were attacked by the malady." At Alexandria M. Aubert Roche found among races living nearly in the same hygienic conditions, the mortality for 1835: Negroes and Nubians, 84 per 100; Maltese, 61; Arabs (not soldiers), 55; and for the rest of the population, Greeks, 14 per 100; Jews, Armenians, and Copts, 12 per 100; Turks, 11; people of southern Europe generally, 7; and people of northern Europe, 5 per cent; the latter would probably belong to the class in easy circumstances.

The terrific contagion of the plague, as Prus insists, has never appealed successfully to inoculation, and the mere contact of the sick does not suffice, without the importation, as in a ship, of their endemic miasm. Moreover, an attentive and severe control of the facts acquired by science shows that even in the epidemic foci of plague, the immediate contact with thousands of the plague-stricken remains innocuous for those who have lived in the open air, or in well-ventilated places; while very numerous facts attest that the clothing stripped from the plague-stricken and the beds whence their corpses have been removed have not, even while the plague continued to rage in the same place, communicated it to those who have worn these clothes or slept in these beds without previous purification.

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* Scolastici Hist. Eccles. lib IV., cap XIX. Turin, 1748.

Thus we see that contagion cannot be allowed of plague in general, but at most only of its manifestation under some peculiar modifications. For the cholera, the yellow-fever, typhus, &c., the intensity of infection is also liable to vary, which does not prevent each from having in this regard distinctive attributes of great practical importance. It is curious to note that the plague, with a less intense sphere of infection than the yellow-fever or the cholera, yet has organic predispositions so strongly marked as to make Senac speak of "parentage being a kind of contagion for it," and which reminds us of the attribute *personality* in the specific viruses. Its subjection to seasons and its long incubation in organisms apparently healthy and remote from its endemic or epidemic sphere, favor the hypothesis of a parasitic origin; but the microscope seems to have thrown no light on this point.

The endemic sphere of the plague is not only feeble as respects the intensity of infection or communicability, but it is indefined with regard to its climatic and telluric character. "Its theatre of manifestation has been contracting," says Boudin, "since the end of the fifteenth century. It last appeared in Iceland in 1493, at Edinburgh in 1645, at London in 1665, at Laponia in 1670, at Marseilles in 1721, at Moscow in 1770. After having encamped during the first half of the nineteenth century on the eastern shore of the Mediterranean, it has ceased to appear even sporadically in Turkey since 1838, and in Egypt in 1844."

The personal and constitutional attributes of the plague receive startling confirmation from numerous attestations to the effect, that whenever and wherever an epidemic of plague is impending, those persons who have at some previous period been attacked by it experience a painfulness of the inguinal region (seat of the pestilential bubo). This election of the *lymphatic glands* is another point of filiation with the specific viruses, between which and the non-contagious affections the plague exhibits a link of transition. It is a spherical miasm, in the manifestation of which the *personal* characters dominate the *local sphere.*

Yellow-fever is a spherical miasm in which the local sphere dominates every other condition—the type, par excellence, of the endemic. One fatal anchorage—a few sailors sent for water to an infected shore—suffice to bring back on shipboard the endemic germ, which accomplishes in that ship its period of personal and local incubation, then establishes there a focus of propagation. Protection is nearly always attainable by resorting to points, even in the neighborhood, but not subject to its invasions, or at sea, by thorough ventilation of the ship with other purifications, although this avails nothing within the sphere of endemic radiation.

The limits of the climatic yellow-fever have already been cited. Within these limits it elects its epidemic and its endemic spheres,—the latter being so distinct that there are not only ports of permanent danger and ports of permanent safety on the same coast, but it will confine itself to certain blocks in a town, certain houses in those blocks, and certain rooms in those houses. Those who nurse the sick are not liable to be affected if these sick be removed from the infected district. The fact of importation, consequent on the incubation of a local infection on ship-board, is perfectly established. One amid thousands of conclusive facts may be cited, from a letter of Mr. Dukoulan to Mr. Boudin: The corvette la Recherche, leaving Brest, arrives on the 24th of August at Cayenne, where she remains eighteen days, communicating freely with the shore and with the steamer Gardien, the yellow-fever raging there; leaving Cayenne September 12th, she anchors on the 18th at Port de France, whence the yellow-fever had disappeared since early in 1853. A quarantine of three days is imposed; on the day after it expires, the 22d, one of her passengers falls ill, and is carried to the hospital, where he dies of yellow-fever on the 25th. Before the 30th six men similarly affected have followed him to this hospital. *La Recherche* leaves on the

30th, cases continuing to break out on her until she reaches New-Foundland. At Martinique, on the 22d, a passenger of *la Recherche* had landed and joined his artillery corps in barracks; thence on the 24th he was carried to the hospital with yellow-fever. This malady was confined to the crew and passengers of this vessel until October 3d, suddenly breaks out in the artillery barracks, where before the 9th it had seized seventeen soldiers. The barracks are evacuated: part of the corps goes up to Fort Desaix, and there communicates the fever to the eighteenth company of marine infantry, barracked on the ground floor of the same building. Others detached to the Marin and to the Trinité equally transmit the fever to the garrisons of these posts, and in a short time it is generalized over the whole colony.

Among the most dangerous points in Martinique may be mentioned Basse Terre and Pointe à Pitre, while the neighboring station of Camp Jacob is a point of security. In St. Domingo, Port au Prince is dangerous, Gonaives secure. The security afforded by acclimation is only reliable for those who never leave, for any considerable time, the place where they had the fever, though natives of hot climates are, cæteris paribus, less frequently seized, and those among them who have had the yellow fever elsewhere, enjoy a relatively greater exemption than the rest. A vessel is liable to be attacked as many times as she anchors within a sphere of endemic radiation; her only security lies in keeping the open sea, touching as seldom and as short a time as possible at any suspected port. An endemic sphere once formed, may be sustained by the accumulation of the sick.

To the formation of the endemic sphere, besides importation, there are necessary certain local predispositions, imperfectly defined, but which are in the main similar to those which favor the evolution of the bilious congestive remittent and other fevers of hot climates, the effluvia of putrescent matters and of marsh miasma. Prophylaxy consists, in ventilation, in purification and in artificial refrigeration as by the dissemination of baskets of ice in the wards of a hospital, evaporation on a large scale, &c.

The inoculation of serpent poison, proposed by Dr. Humboldt, has not stood the test of repeated experiment.

ARTICLE XXXII.—*Derangements of the Human Mind in their Relations to Physical Disease.* By F. W. HUNT, M.D., of New-York.

Continued from page 351 of the February Number.

THE brain and nerves constitute the master tissue of the human body. It is *superiority of brain*, either in structure or conformation, which mainly creates the distinction between different individuals and different races. A thorough knowledge of this wonderful structure would enable us to explain some of the most mysterious inconsistencies and contradictions in human character, and many of the strangest events of human history; and would also render us more capable of comprehending the grand destiny of the human family.

The problem of what man has been and has accomplished has only been partially solved by history, because historians have but imperfectly understood the physical or mental constitution of man. The ancients thought him "*an intelligence served by organs.*" Modern philosophers have set themselves to investigate the "organs," and to explain away the "intelligence" into non-entity. Our present purpose is, not to enter into the controversy between them, but to render tangible and available for practical use the best observations, and the results of the best experiments that have been made by the searchers after truth since error and disease became established upon earth.

In estimating the probable future of our world, the mental peculiarities and capacities of different races and nations must be taken into the account. Modern research has shown that national characteristics have continued unchanged from the remotest ages. The Arabians are just what they were in the days of the patriarchs. Very recently it was declared by ethnologists, that the Hindoos had altered in nothing since they were described by the earliest writers; and we know that thirty-five hundred years have made no difference in the skin, the hair, or the features of the Negro. The characteristic features of the Jew may be recognized in the sculptures of Luxor and Karnac in Egypt, where they were depicted more than thirty centuries ago; and they are seen to bear the most striking resemblance to the Jews of the present day. Neither their residence in Palestine, nor their subsequent banishment into every country and climate of the world have made any sensible change in the personal figure, the form of the head, the color of the skin, or the lineaments of the countenance.*

The permanence of national characteristics in the features of well-known races is displayed in Egypt for the longest period known to history. By the researches of M. Auguste Mariette in 1854, the most perfect specimens of the Egyptians, as they were in the time of the shepherd kings and Pharaohs, and the builders of the pyramids are placed side by side with their modern descendants; and they are shown to be identical in form and every feature, though about five thousand years of time intervene between them. (See Morton, Gliddon, and Helmuth—Cranioscopy: *U. S. Jour. Homœop.*, Vol. I., p. 682).

The *primary* origin of the diversity and peculiarities of races presents a problem much discussed in our time, but we cannot enter into it here.

The present aspect of the nations gives reason for believing that the Caucasian race of men are soon to subjugate the whole habitable earth. Great Britain, says a late and eloquent writer, "is but a speck in the waves, and yet her power is felt and acknowledged in every corner of the earth;" and the North American republic presents at this moment a spectacle upon which the nations of the earth are gazing with awe and astonishment. And what is the source of all this power? The "intelligence within" finds itself in possession of a castle sufficiently capacious and strong for offensive and defensive purposes—in a *brain*—"the largest, best developed, best conditioned brain belonging to man. No matter how good the form of the other parts of the body may be, they owe that also to perfection of brain." The Anglo-Saxons are known to compose the most highly endowed division of the Caucasian race; "their brains are larger, better proportioned, and, from temperament and exercise, they are in better condition for efficient action."†

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* Morton's "Crania Americana."

† Charles Caldwell, M.D.

But the restless and enterprizing Caucasian, in his march towards the empire of the globe, finds many obstacles in his path which never trouble the lethargic brains of other less intellectual families of our race. Civilization has its depths as well as its heights; and it has nowhere been successful in "subduing the earth," except at the expense of an immense amount of "wear and tear" of brain and muscle. The latter half of the nineteenth century finds him more restless than ever, though the age in which we live be

> "The heir of all the ages, in the foremost files of time;"

though it builds into substantial realities all the castles in the air that dazzled the imaginations of visionary man in all former generations; and saints and prophets have desired to see many things that we now see, and have not seen them; still there are heavy incumbrances on the wrong side of the grand balance-sheet of humanity: heaviest of all was the perpetually advancing progress of insanity. The noblest specimen of the most progressive race looks with pride upon the aspirations and achievements of the human intellect; but that same intellect often presents itself under aspects that ought to furnish a perpetual antidote for human pride. The highest created object in the universe is an imperial human mind; the lowest and saddest is that same mind dethroned and wildly wandering in the mazes of insanity.

Of the *causes* of this continual increase of mental derangement in our time I have already spoken at some length in a former article, I propose now to enumerate a few more, which are the more immediate results of a high state of civilization.

1. The struggle for wealth, fame, and position in civilized society demands of each competitor for the prizes offered to the successful, an intensity of effort which none but sound minds in sound bodies can endure without exhaustion. There is everywhere over-exertion of mind, without corresponding physical labor; there is effort to work the brain more, and the body less; to speculate upon a small amount of borrowed capital, paying high interest, high rents, and meeting the requirements of society by making heavy sacrifices of mental tranquillity, as well as of moral principle.

2. Mental excitement, arising from moral, political, or pe-

cuniary causes of anxiety produce derangements of physical health, and these involve the brain and nervous system secondarily, if not primarily.

3. The tendency of the popular literature of our time is to cultivate a morbid activity of the imaginative faculties, which is far more injurious to physical and mental health than overaction of the reflective faculties. In the readers, as well as the writers of exciting works of fiction, the great temporary excitement produced by dwelling upon imaginary scenes and unnatural emotions is followed by depression, and is renewed by a re-actional pyrexia, much more exhausting to the vital powers than is the more equable and continuous exertion of the reasoning faculties. Exercise of the reflective faculties upon tangible attainable objects, whether in the investigation of questions of jurisprudence, philology, or natural science, have never caused insanity or shortened the duration of life. Of the last ten Lord Chancellors of England, beginning with Lord Thurlow, all lived to the average age of seventy-six years. Comparing these with the more distinguished of English poets, from Spencer to Byron, we find their average age at death to be fifty-two years. Thus it is commonly said, that musicians and poets die young, while philosophers and lawyers live to greater age.

In the nineteenth century the pressure of mind comes largely upon men of business. In every department of labor and business there is an intensity in mental effort which far surpasses that displayed or required in the physical. The mail-carrier of 1825 is described as "a merry robust fellow, loaded with capes, top boots, and driving at the rate of ten miles an hour."

> "He whistles as he goes, light-hearted wretch,
> Cold and yet cheerful—messenger of grief
> Perhaps to thousands, and of joy to some,—
> To him indifferent whether joy or grief."

The mail-carrier of the present day is "a pallid, meagre, sharp-visaged man, clad in a short blue jacket, and devoid of all superfluous clothing or impediment; but with a restless look, that seems to show his active and anxious mind is accustomed to progress, analogous to that at which he is soon to guide hundreds through the air." His element is not repose, but motion—boisterous, impetuous, reckless; this is the man who directs the railway locomotive "while rushing away at its appalling speed." He is a type of the time—of the ascendency of mind over matter. "The spirit of the times should be pictured by an artist as an unfortunate Kirke White, pursuing his nocturnal study, with a wet towel round his heated head, pale, faint, and trembling, lest his sands of life would run out before his insatiable appetite would be satisfied with acquisitions and praise."

Life in our day is morbidly active; every mind is kept in a state of intense action. The scholar strains his mind after objects that are not in that way to be reached, until, like Hugh Miller, he exclaims: "my brain is burning!" The man of capital is obliged to develop new powers and combinations of powers to enable him to compete with the enterprizing and adventurous fortune-worshippers which throng the courts of the temple of Plutus. The laborer finds it necessary to work earlier and later, or walk farther to find work to do; and under this perpetual stir and agitation, the nervous systems of men and women generally are much more irritable than they were a quarter of a century ago; all the causes of insanity, whether disordered imagination, pursuit of money, disappointed ambition, financial losses, over-study, and over-work, are thus in the present day on the increase. Miss Dix said in 1860, that ten years ago she estimated the proper subjects for lunatic asylums at 1 per 1000 of the population, now she estimates them at 1 to 490.

The increase of insanity among American women is in part accounted for by the increasing number of household duties that the present demands of society impose upon women who are not able to employ a sufficient amount of domestic help. Civilization is defined as "the art of keeping up appearances." In the effort to keep up a good exterior it is common to see the heart-broken and discouraged wife or widow "lose in turn her appetite, her rest, and her strength; her nervous system becomes prostrated, and sinking under her burdens, she seeks rest in the lunatic asylum."

The remote and predisposing causes of insanity are in a large proportion of cases traceable to "malign influences of childhood." Dr. Butler says: "When the duty of making home happy shall be better realized, we shall have in our land less of vice and crime, and much less of insanity. The neglect of physical training, and the imperfect physical development consequent on this neglect, are strikingly evident among our female patients. The various *causes* which are reported to me as the sources of the disease, and which are classified in the tables under the head of 'ill health,' intense mental and bodily effort, 'grief, domestic unhappiness,' &c., may very frequently be traced, in their primary influences, to the one cause of the want of physical stamina." (*Report of the Hartford Insane Asylum*, 1860.) In a previous report (1848) he says: "Not one girl in ten in these days enjoys really sound rugged health." For the correction of this state of things he knows no other remedy but the enforcement through life of health-giving active exercise. This alone can give "strong and vigorous health, perfect digestion, and no nervousness. An English girl, accustomed to all weather and thick shoes, considers a half a dozen miles a trifling walk, and she takes it day after day. The majority of American girls, with their thin shoes, would regard such a walk as nearly impossible."

Hereditary Predisposition.—Insanity is certainly inherited from ancestors, though the *predisposition* may not show itself in every family or may not be developed into *obvious disease* in all cases. Thus children often escape insanity, but the hereditary susceptibility is seen in the grand-children. It is believed that predisposition to disease is more frequently inherited from the mother than the father. I have seen in one hospital two sisters from one family, and a brother and sister from another; also a father and his daughter. In this city there are cases of several of a family. I know a mother and daughter who have been in the Blackwell's Island Hospital; another daughter has been insane at times, another is always partially idiotic. They all inherit an eczema which produces insanity when it recedes to the brain.

Indiosyncracy.—The word signifies an abnormal sensibility to drug-action, or such relations to a certain drug as that the drug produces in the prover symptoms that occur in no other prover, and which bear no analogy at all to the symptoms which others experience. Such idiosyncrasy is exemplified by persons who have "hay asthma," "rose catarrh."

But, as usually employed, the word means only "susceptibility *unusually acute*, but not *abnormal* sensibility." Some persons are peculiarly susceptible to certain influences as to certain diseases. Some persons may have a peculiar susceptibility to the action of certain remedies and may succeed in obtaining symptoms from it that others fail to perceive.

Claude Bernard says, we may take it for granted that not only morbid but also physiological predispositions exist in man as well as in the lower animals; even in their best health, in which the individual retains his own peculiar habit of body, and is more liable to some accidents than to others; and many conditions that are habitual to one individual can be mated with another by bringing him down to a similar state of health, and this is to be done by operation through the nervous system.

The difference between different races of horses consists more in the difference between *nerves* than *blood*. An irritable, sensitive, highly-organized nervous system is in fact the difference that separates the race from one of the diminutive ponies of the hilly countries.

The difference between individuals may be naturally expected to be far more extensive in man than in other living beings. Hypnotism is a peculiar state which can only be produced in a small number of highly sensitive and nervous patients; and all the phenomena of somnambulism fall under a similar general rule. It is, therefore, evident that idiosyncracies are only peculiar susceptibilities which exist in the normal state in various individuals.

In conditions of disease, the vital powers of the living body are changed so that medical agents and poisons do not produce the same effect that they do in health. In some diseases medicines have very little power: 1. Because absorption is almost entirely suspended; and 2. because the nervous system is strongly depressed. Where secretion is over-excited, the absorbent surfaces lose their properties. The inner surface of the salivary gland in a state of health, rapidly absorbs strychnine and woorara, when secretion is rapid, absorption is more slow. In cholera, no substance whatever is absorbed from the intestinal walls while the characteristic discharge continues. In mania, absorption is suspended. After the crisis is past it is restored.

INSANITY PRODUCED BY ALCOHOLIC DRINKS—OINOMANIA.

Dr. Gray, of the New-York State Lunatic Asylum (1860), says: "The moral perversion under which many persons labor who are given up to inebriety, disposes some to look upon it as a form of insanity rather than a vicious habit. The change of character often manifest; the periodical abandonment to excessive drinking, till reaching a full debauch; the penitence, and promises afterwards; the craftiness in stealing away from friends at these periods of self-indulgence; the ultimate loss of self-respect in some, and disregard of duties and responsibilities of life in all; the maintaining of *an irresistible impulse* to drink to complete gratification, and when arrested in the midst of the debauch to return to complete it; all these are by some placed to the credit of mental disease, and the destructive vice of intemperance is thus sheltered, and in some persons excused. Unfortunately, not only in the medical profession, but in the pulpit we have advocates for the recognition of this vice, in some of its phases, as belonging to the catalogue of some of the "forms of insanity." The term *oinomania* has been applied to "an irresistible impulse to drink to drunkenness, in disregard of consequences or character." It is only a respectable name under which this vice would seek refuge from moral responsibility, and claim the sympathy and indulgence of society in the gratification of an excessive appetite self-induced. Some give way to these paroxysms of intemperance, claiming that the appetite becomes too powerful for resistance, others under some slight trouble because somebody has slighted, or wounded, or wronged them; or because they have in some way been disappointed; or because the world, or society have failed to appreciate them, or because they have become weary of life.

"We look upon one and all of these causes as the voluntary abandonment of self to appetite as progressive drunkenness, producing what might well be anticipated from vicious self-indulgence, namely the loss of self-control, and the gradual but sure degradation and final demoralization of the individual. That intemperance produces insanity no one can doubt." But that this temporary form of it which is self-induced should never be encouraged by admitting that it is in any degree excusable. "If an irrisistible impulse to self-indulgence, disregard of consequences, and general demoralization were characteristics of insanity, intemperance might find some shadow of claim to be recognized as a form of the disease; but, on the contrary, insanity is an immolation of self. An irresistible tendency exists to thoughts, feelings and actions at variance with the demands of the appetite, and the course of life anything but promotive of self-gratification. In insanity there is but an apparent and temporary demoralization, induced by a beclouding of the mind in its knowledge of the relations of things, and the consequent loss, more or less complete of the abstract ideas of right and wrong. In insanity the irresistible tendency has a motive or purpose in view above the simple gratification of appetite; and here disregard of consequences is the result of an absorbing active delirium, or a conviction that the wrong is under the circumstances right. We do not desire to withdraw sympathy from the unfortunates who have fallen under intemperance, but merely to disavow the theory that it is a form of insanity, and to protest against receiving its victims into institutions of this character."

M. Morel says: "One class of men arrive, at length, by a series of well-marked lesions, physical and intellectual, at general paralysis." * Another class, although profoundly affected, as regards the innervation, remain stationary at a point leading a miserable existence, characterised physically by a special condition of cachexia and marasmus, morally by a manifestation of the worst tendencies, and the lowest brutishness.† In these melancholy cases we see well displayed the capacity of this potent agent in causing *degeneration* of all the tissues, including the brain and nerves; even when it is not carried so far, similar symptoms are conspicuous: "The hands tremble especially in the morning; at a later period the tremors continue through the day, being increased by slight exertion, and only relieved by alcoholic stimulants. There is dimness of sight as if a veil were suddenly passed before the eyes; the tongue is tremulous, and speech is indistinct; the patient is troubled with frightful dreams, sensations of insects creeping over the skin; tremors and shuffling gait in walking; diminished muscular power in the lower limbs, finally in every part; diminished sensibility of the skin; vertigo, staggering; hallucinations so startling and exciting as to banish sleep altogether. He imagines that he sees persons or objects, or hears voices; the pupils become dilated and less sensible than in health."*

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* Huss on Alcoholismus.

† On physical Intellectual and Moral Degenerations of the Human Race. p. 113.

"The drainer of oblivion, even the sot
  Beholds *blue devils* in his morning mirrors;
And, though on Lethe's stream he seems to float,
  He can not sink his tremors or his terrors.
The ruby glass that sparkles in his hand,
Leaves a sad sediment of time's worst sand."

Such are the principal effects of Alcohol when its use is long persisted in, and these effects are transmitted to successive generations. M. Morel says, he never witnessed a cure of the disease caused by alcohol in a patient who derived the tendency to alcoholic excesses from hereditary predisposition. In one family he noticed that habitual intemperance in a great-grandfather entailed upon the first generation, "immorality, depravity, intemperance, and brutish disposition; in the second, hereditary drunkenness, attacks of mania, general paralysis; in the third, sobriety, hypochondriasis, lypomania, systematic ideas of persecutions, homicidal tendencies; in the fourth generation, intelligence was but slightly developed; access of mania at sixteen years of age, stupidity running into idiocy, and into a condition involving the extinction of the race." Similar remarks have been made by Drs. Cox, Adams, and Whitehead.†

M. Morel, after showing that the use and effects of alcohol are rapidly extending in the various countries of Europe, as England, Scotland, Ireland, Prussia, and also in the United States, and in Central and South America, thus sums up their degenerative influences on the race: "They have invariably the same character in all latitudes. New maladies are generated and old ones take on increased fatality; the average duration of human life is lessened; the viability of newborn children is less to be depended on; and the disturbances of the moral and intellectual nature become at length signalized by the highest rates of insanity, of suicide and crime."*

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* Huss.

† Hereditary Diseases, p. 31.

The effect of Alcohol on the human mind is thus described by a distinguished politician who suffered it: "In that world of all that is high and noble the human heart;" that consecrated temple of "glorious hopes and generous purposes, and god-like aspirations, and countless joys known only to the heart of man, the alcoholic poison breaks up the fountains of the great deep of human passion; and converts the mind into a "wild distorted receptacle of passions, lashed into monstrous and phantom forms, by flames that distil the fountains of human love and charity and kindness into the red lava of Hell's worst hate." And that bright principle of the human intellect which comprehends the laws that govern the universe and our own mysterious being; instead of being blotted out in darkness, is transformed "into the wild architect of a world distorted and ideal, peopled with friends such as perverted mind alone can conceive, and fraught with sufferings and agonies for which breathing nature furnishes no type nor parallel."

The feelings of an inebriate when he found himself about to enter upon the horrors of delirium tremens, are thus described by one who felt them: "The leading terror of that day was the dread of the loss, the transformation of my nature in the being of a drunkard. Never did any idea break upon me in such terrific, unmingled, unutterable horror! Appetite—accursed, uncontrollable appetite, for a fluid which I well knew brought ruin, madness, desolation in its fierce track, appetite seemed about to overwhelm reason, and I should cease to be a man. I would that day, that fearful day, have grasped, a bar of iron heated to a white heat in my bare hand, till it seared me to the bone, to have expelled the demon that was revelling in my veins, destroying my nature and substituting a creature for which there is no class in the boundless universe of God's works." "It would be far less terrible to me to be changed into *any* form, to crawl a serpent and feed on the dust, so I carried with me the moral senses, and the intellectual principle, than to retain the human form, animated by a principle no longer human, guided and controlled by a sentient spirit compound of beast and fiend in passion; with no avenues of true communication with external and beautiful nature; false yet horrible in all its perceptions; sensitive to all the awful and unutterable pangs inflicted by monsters of its own creations, yet dead to all the just impressions of reality. No, if I am to be transformed and yet live, give me, if you please, any shape, any form, but let, oh, let me retain the mind and the heart of a man!"

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* On Degenerations of the Human Race, p. 389.

Prognosis.—The first question asked by the friends of the insane patient will be: "*Is there any probable chance for recovery?*" The answer must be influenced by the causes of the disease, and must be well considered before it is communicated! We too often regard insanity as hopelessly incurable. It is very often cured when it arises from temporary causes, such as the following: derangements of the digestive organs; menstrual irregularities; sudden suppression of an external eruption or ulcers of long continuance; metastasis of gout; utero-gestation; consequences of parturition.

Any of these causes, having originated the disease by producing undue determination to the brain, may be removed by proper treatment; and the organs diseased being restored to their natural functions, the mind resumes its proper powers. But an apparent recovery must always be looked upon with extreme caution, if not with distrust; ample allowance must be made for the proverbial cunning of the truly insane; and many do really improve to an extent that raises the highest expectations in the minds of their friends, "and then suddenly assume an alarming form, leading in some instances to homicide and in others to self-destruction." (Dr. Brigham.)

Mania may alternate with other forms of insanity and thus change its aspect. It may be continued, remittent, or intermittent, returning at variable intervals. When it does really terminate it is often manifested with some physical crisis, as: "Mucous or bloody stools, vomiting, ptyalism, leucorrhœa, epistaxis, re-establishment of the menses, or of suppressed hæmorrhoids, varices, eruptions, erysipelas, or boils. It may terminate by continued or intermittent fever; or may degenerate into some more hopeless condition, as melancholia or dementia." (Frank.)

The cases less likely to be cured are: those in which insanity is associated with organic diseases of the brain or hereditary predisposition. Insanity produced by moral causes; melancholia, especially in persons advanced in life; men are more difficult to cure than women; religious mania, or that excited by religious enthusiasm; cases caused by morbid excitement of the imagination, to the extent of overcoming the reasoning powers; in such cases the wildest phantoms constantly hold possession of the unhappy sufferer's mind.

In the more hopeless cases certain *physical peculiarities* reveal the extent of the physical disease which is associated with, if it did not originate the mental disease. There is great torpor of the alimentary canal from atony of the chylopoetic viscera, or from primary derangement of the nerves of these viscera. Strong doses of purgatives were formerly given to such patients, and they were found remarkably insensible to their effects. The skin is generally swarthy and dry. Dr. Haslam examined two hundred and sixty-five insane patients and found that two hundred and five of them had swarthy skin; the remaining sixty had fair skin, with light brown or red hair. Dr. Rush found the secretion from the nose suspended in two-thirds of the patients in the Pennsylvania Hospital. (Dr. Sims.)

In cases that terminate fatally, the diseases under which maniacs generally die are: cerebral fever, apoplexy, inflammation of the meninges of the brain, phthisis pulmonalis, ulceration of the intestines, or complete exhaustion of the physical and mental forces.

The symptoms of a speedy termination in death correspond more nearly with those of a fatal termination in other diseases. The usual symptoms of a sinking of the powers of life are often accompanied by a speedy subsidence of the mental symptoms of insanity.

Case by Sir H. Halford.—A man, aged twenty-four, had made free use of Mercury, took cold, and was attacked with fever. On the fifth day he was slightly delirious. On the seventh day he was in the highest state of excitement. Standing erect in the bed, his eyes flashing fire, exquisitely alive to every movement about him, and so irascible as not to be approached without increasing his irritation to the degree of fury. He was put under coercion and Tartar-emetic in grain doses. On the eleventh day of his disease, says Sir H. Halford, "I was informed that he had become quite calm and seemed much better. It had been remarked that he had said repeatedly that he *should die;* and under this conviction he talked with great composure of his affairs, mentioned several debts, which he had contracted and made arrangements to pay them; sent messages to his mother who was abroad and talked much of a sister who had been dead a year or two, and whom he would now follow immediately. I asked if he had slept previously to this quietude, and whether his pulse had come down. The messenger answered that he had not slept, and that the pulse was quicker than ever. Then I perceived that this specious improvement was unreal, and that the clearing up of his mind was a fatal symptom, a lightening up of the vital fires before total extinction; and I said *he will die forthwith.* Entering his room he did not notice us. His eyes were fixed on vacancy, and he was occupied entirely within himself, and all we could distinguish was an indistinct mention of his sister. His hands were cold, pulse indistinct and rapid. He died the same night." *

TREATMENT.—If it be true that mental diseases in all their numerous and mysterious manifestations are certainly increasing, it is time that enlightened public opinion should demand more efficient legislation for the establishment of institutions where the insane may receive the benefit of all the resources which medical science in its highest development can afford. From the time that Hahnemann, in Germany, and Pinel, in France, simultaneously connected that system of *moral treat-*

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* On Death and Madness, p. 96.

ment of insanity, which has in our day been generally adopted, there has been little improvement.

In 1792, Pinel, the Howard of the insane, who had charge of the Bicetre Asylum of Paris, undertook the management of a patient who had already been confined forty years. He had already killed one of his keepers by a single blow with his manacles; and, being one of the most furious patients in the Asylum, he was chained more rigorously than any other. Pinel took off his chains, threw open the door of his cell, and turned him loose, upon his simply promising that he would behave well and injure no one. He kept his promise, and during the two years he spent in the Asylum, he had no return of his paroxysms of fury. Another maniac whom Pinel liberated had been chained for ten years. He was watched with great care, for he had frequently broken his chains with his hands alone. Pinel announced to him that he should be chained no longer; and, to prove that he had confidence in him, and believed him to be a man capable of better things, he called upon him to assist him in releasing those who had not reason like himself; he also promised that if he should conduct himself well, he should be taken into his own service. The change was sudden and complete. No sooner was the maniac liberated than he become obliging and attentive; following with his eye every motion of Pinel, he executed his orders with great address and promptness. He spoke kindly and reasonably to the other patients, and during the rest of his life was entirely devoted to his deliverer.

In the same year that Pinel first attempted to restore the maniac by treating him as a man and a friend, Hahnemann cured his first patient by applying to the mind the principle of homœopathy which he was then beginning to apply to diseases of every form. What his general views were at an early period of his professional career may be seen by reference to the "Organon," §229, page 192; last Amer. Edition.

"Contradiction, zealous remonstrance, violence and reproaches are as inapplicable and injurious in mental diseases as indecision and timidity. But mockery in particular, and deception, which the maniac is not slow in perceiving, only irritate and provoke him. *The physician and those who guard* *the patient, ought always to appear as if they believed him to be possessed of reason.* It is necessary also to remove from his view all external objects that could disturb or afflict him. There is no relief or distraction for the clouded mind, no salutary recreation, no means of instruction or consolation, either in books, conversation, or otherwise for the soul that languishes in the prison of a diseased body, nothing can procure him repose but the cure of his bodily sufferings, and he is equally a stranger to comfort and tranquillity till reason is restored."

How the insane were treated in those times in Europe and America generally, I will not now describe. A few humane men in England and the United States were toiling to ameliorate their condition; and I must omit all accounts of the dens and jails in which these unfortunate beings were confined even in our own country, in some states, as late as 1840. But, instead of recalling that revolting picture, I will give the description of the treatment of the insane *in Egypt*, as seen by Dr. Madden, the traveller, in 1824. "I was led from one passage to another, door after door was unbarred; the keeper armed himself with a *courbash*, or whip made of one solid thong of hippopotamus hide, and we got into an open court, round which the dungeons of the lunatics were situated. Some, who were not violent, were walking unfettered; but the poor wretches in the cells were chained by the neck to the bars of the grated windows. The keeper went around as he would in a menagerie of wild beasts,—rattling the chain at the window, to rouse the inmates, and dragging them by it when they were tardy in approaching. One madman, who spat at me as I passed his cell, I saw the keeper pull by his chain, and knock his head against the bars till the blood issued from his nose; I forced him to desist. Each of them, as we passed, called out for food. I inquired about their allowance, and, to my horror, I heard that there was none, except what the charitable people were pleased to afford from day to day. It was now noon, and they had had no food from the preceding morning. Two well-dressed Turkish women brought in, while I was there, a large water-melon and two cakes of bread; this was broken in pieces and thrown to the famished creatures.

I never saw nature subdued to such lowliness; they devoured what they got like famished tigers,—some of them thrusting their tongues through the bars, others screaming for more bread. I sent for a few piastres worth of bread, dates, and sour milk; its arrival was hailed with a yell of ecstacy that pierced the very soul. I thought they would have torn the iron bars to get at the provisions; and in spite of the courbash, their eagerness to get their portions rendered it a difficult matter to get our hands out of their clutches. It was humiliating to humanity to see these poor wretches tearing their food with their filthy fingers. Some of their nails were so long as to resemble the talons of a hawk.

"A black man, who had followed the trade of a butcher, had been allowed the range of the house, with two or three others, whose derangement was attended by no violence. One night the black butcher secreted a knife; he induced another man to enter his cell and lie down, he then cut his visitor's throat, and calmly cut him into quarters, and distributed the joints around his cell, as he had been in the habit of arranging his meat in the shop. He solicited the custom of his comrades, and to those who were chained he carried such portions as they desired. The keeper was disturbed by their cannibal rejoicings; it was the first full meal they had had for many a long day. On examining the cells he found that one man was missing; he asked the butcher if he had seen the lost man: he replied that he had just sold the last joint of him. The keeper said he had to look out more closely after that, 'otherwise they would eat one every day.'"

Since the commencement of reform by Pinel and Hahnemann, *some improvement* has certainly been made. Public asylums have been established in all civilized countries, including the several American states; and in these institutions those leading ideas which two master-minds struck out at the close of the last century have been very extensively developed. We might feel disposed to criticise some things in this system of moral treatment, which is employed in the hospitals for the insane, but that is not our object. That system of treatment is homœopathic in principle; we rejoice to know that it has done an immense work in ameliorating the condition of the most afflicted of human beings; we say, let it be promoted and extended. We only complain, that *but one-half* of the Hahnemannian idea has been carried out in any asylum. He proposed and practiced a *medical treatment* in conjunction with this *moral management;* he was successful in it, and his followers have been successful also. In doing what they have done, they have not had the advantages of extensive buildings, a trained corps of assistants in each, with all the machinery furnished by the wealth of states, to be constructed under their direction. Homœopathists have been compelled to treat their patients under the same disadvantages that embarassed all other physicians before proper asylums existed,—controlling them as they could at their homes; or they have reluctantly consigned them to restraints of the hospital, where they know no efficient medical treatment could be tried. We claim that the insane have a right to share the best influences of the best asylum, and at the same time to have the opportunity of receiving the best medical treatment that homœopathy can bestow. The opportunity for this experiment ought to be found somewhere. We find but one small obstacle in the way: all existing hospitals for the insane are under the control of authorities who deny the efficacy of any remedial agents in curing diseases of the mind; and, having got control of these institutions, as well as of the various posts in the military and naval service of the country, they will perhaps be in no hurry to surrender them. And they probably feel on the subject like the weasel in the fable, who, having crept into the rabbit's den, said, he "did not care if he threw all heaven and earth into confusion, if he could only keep possession of it."

The successful treatment of insanity requires an extraordinary capacity for comprehending and applying all the agencies that have power to influence the human mind in disease, as well as in health; and a degree of tact and versatility in applying those remedial measures to the circumstances of individual cases, which can only be acquired by extensive observation and experience, based on a thorough knowledge of the results attained by the profession at large.

Moral Treatment.—A majority of the cases of insanity arise from moral causes, such as undue exercise of the emotions and passions. It was this observation that led Hahnemann to employ moral influences of a *similar* character in the cure of his first patient; and thus, in a manner entirely homœopathic—although the idea of "*Similia Similibus*" was then only forming itself into shape in his own mind—moral influence was effectually directed to the driving out of morbid moral impressions. The general course of moral treatment consists in calming and soothing the mind, and in *gradually* drawing into it an entirely new train of ideas and mental associations. By degrees the intellectual powers become withdrawn from the old channels, and being employed on new objects, the morbidly active faculties have time for rest and renovation. The importance of abstracting the mind from all accustomed associations and thoughts has been generally admitted; and for the opportunity to accomplish this object it has been common in our time to remove deranged persons from their accustomed residences, and from all association with their immediate friends. For this reason alone the patient is placed in an asylum where his personal safety and that of others can be provided for by proper restraints, and such influences may be brought to bear upon the mind as shall fill it with new ideas to the exclusion of old ones.

But it is not merely the residence of the patient within the massive walls and iron-grated windows of an asylum, surrounded by other patients more insane than himself, and the consciousness that he is a prisoner, abandoned by all who were once dear to him, that cures insanity; these accompaniments of the public asylum system, instead of being a *benefit* to the lunatic, are all in themselves *injurious*. When his personal safety and that of others can be secured in a small circle of intelligent, discreet friends, who possess the knowledge that hospital employés are supposed to have, and the sympathy for the patient's real sufferings, which they too seldom feel,—where he may be so treated that he does not know that he is a prisoner, and where his self-respect shall not be rudely touched, his dominant phantasies ridiculed, or his morbid sensibilities harshly invaded,—then, under the influence of such surroundings, and the personal presence of a true-hearted and true-minded physician, fully imbued with the principles of Hahnemann, may be restored to reason many a blasted human intellect, over which existing institutions have no power.

The system of treatment which consigns the maniac to the cells, the fetters, and to the society of maniacs, is never the best. The patient who has ever known prosperity, too intensely feels the degradation to which he is reduced. If we succeed by raising him mentally and spiritually, we must begin by respecting him as a man. Every human being claims some degree of consideration and sympathy; and if we expect to succeed in drawing the wrecked mind from the ocean depths of despair, we must begin by seeking *points of contact* in his character as it is, by which we may gradually *bend* it out of its false direction, not attempting to break it abruptly off. The insane man generally does not know that he is insane, and inferior to others; hence the impossibility of gaining his confidence so long as you treat him with contempt. He thinks he is a man—your equal,—yes, *any* man's equal. You stand before him in the pride of intellectual strength, and he is crushed before you as one whom the world cannot permit to pass beyond your prison walls. But he rises before you and says, as Black Hawk said to President Jackson: "*I am a man and you are another!*" The Chief had been a hunter, a warrior, a prisoner, had worn a ball and chain on his leg as a criminal; and he had come up from Fortress Monroe to look the Great Chief of the Twenty-four Fires in the face. In the estimation of men, King Lear was a prince in degradation, but in his own mind he was still "a king—aye, every inch a king!" The desolate maniac in his cell feels, as you approach him, that *he is a man* and *you are only another.* If your estimate of him is different, you are not the man to gain *his* confidence, or to raise him from his state of humiliation. One striking characteristic of the insane is a supernatural quickening of the perceptions, by which he reads, as if by intuition, the minds of those around him, who may ignorantly think him wanting in those very powers.

The stone walls, the bolts and bars, the strong and vigilant police force of the asylum, *have no magic power* to *restore disordered reason;* and the congregation of great numbers of the insane in one building and in one ward, if necessary under the existing state of things, is not generally beneficial to any of them. Though many recover, it is not by these agencies that they recover. All the triumphs of homœopathy have been achieved without their influence. How insane persons have been cured by homœopathists in private practice, the writings of all our practitioners from Hahnemann downward may show. If others are satisfied with the result of treatment in the cases they have consigned to the hospitals, I am not. The true moral and medical treatment of the insane must be left for consideration at a future time.

ARTICLE XXXIII.—*The Radical Cure of Syphilis by Cowpox-vaccination.* By WILHELM JELTSCHINSKY, M.D., of Moscow, Russia. Translated by SAMUEL LILIENTHAL, M.D., of New-York.

THE vaccinated syphilitic patient offers to the physician the picture of two diseases, operating on the same organism, and producing a mutual influence on each other.

The author employs vaccine matter in fluid form, collected in glass tubes. The best places for vaccination are the anterior and internal surface of the thigh and upper arm, as those places are rich with lymphatic vessels, and the dresses of the patient do not fit so tightly as to irritate the pustules. The distance between the pustules ought to be at least the width of the thumb, in order not to get them confluent. The number of punctures cannot be the same in different individuals, but must be adapted to the age and constitution of the patient and proportioned to the reaction of the organism. It is believed, that with young persons ten punctures suffice, whereas grown persons double that number. At the first vaccination we must not be too liberal, in order not to rouse too strong a reaction, as we can easily augment it by increasing the punctures at a subsequent time. The operation ought to be repeated, as soon as the pustules of the previous vaccination have dried up, leaving a flat cicatrix.

2. COURSE OF SYPHILITIC APPEARANCES.

A. *Local appearances.*—First period. A few minutes after the introduction of the virus by the lancet, the cutis round the puncture swells without changing color. This colorless swelled circle, similar to urticaria, enlarges by degrees, also in width, and sinks in. A few minutes more and this cuticle takes on a roseate hue, following the course of the lymphatic vessels. After a while this redness concentrates itself round the puncture, where the pricked skin takes on also an increased sensibility. Subjective symptoms are, a burning itching, or painful feeling round the puncture, but this is not felt by all; a feeling of heat and fullness round the puncture, in sensitive persons a reaction sets in quickly, ushered in by more or less severe chills, followed by heat and perspiration.

Second period.—Pus is formed in the pustule. The infiltration of the skin is now more limited, but subjectively we remark already a swelling of the nearest lymphatic glands. This consensual suffering of the glands may pass through all the inflammatory stages up to suppuration.

Third period.—The pustule fills. Henceforward we find differences between vaccination on healthy or syphilitic persons. We perceive sometimes a very small pustule of whitish yellow color enlarging to the size of a millet seed, then drying up and vanishing. In other cases the pustule reaches the size of a small pea, but this pustule has not the depression in the centre, peculiar to the common pus pustule. By removing the pustule in order to see what has happened below it, we see the cutis irritated as if gnawed; and the longer the pustule preserves its contents without tearing, the more we find the skin affected, so that we find sometimes an ulcer, penetrating to the cellular tissue beneath. Corresponding to the deepening of the suffering of the skin, which serves as a basis to the pustule, deepens also the consensual inflammation, which surrounds the pustule; and finally, we see a third hood of pustules, which could be called vesicular, reaching, without bursting, the size of a large hazelnut or more; the color of such blisters is dark brown and bloody, similar to the color of the pustule of mortification. Their contents are a dirty bloody fluid with flocculent pus; their surroundings are dark bluish-red; when opened, the base shows a matted mass of dead tissue. When confluent, they form large deep ulcers, to obviate which, they ought to be opened early; this saves the patient from having *deep* ulcers, but does not diminish their *size*, as such pustules have an inclination to spread. Such pustules are only the most convenient outlets, through which the organism can rid itself of the poison, as those ulcers show all the signs of syphilitic wounds. Thus, the third period, offers three different forms: *vesicles*, *pustules*, and *blisters*. The medium time of this stage is twelve days, as after opening the pustule continues to secrete pus freely, and this secretion prevents it from drying up.

The fourth or period of dessication appears more or less speedily in proportion, as the secretion of pus diminishes from the bursted pustule. The crust is soft, dry, friable, in color brimstone yellow or of a dirty green. In many cases the pustule at this period shows the greatest similitude to the syphilitic rupia.

Case 1.—M., twenty-three years old, lymphatic constitution, had three times gonorrhœa and a year ago ulcers on the prepuce, considered by his physicians as scrofulous, and cured by Kali-iod. Those ulcers appeared three times in the course of nine months, and were always relieved by the same remedy. At his appearance in the clinique, we found three soft ulcers on the swollen external prepuce, also tonsils enlarged, velum palati ulcerated, and deep though not large ulcers penetrated to the bone, showing necrosis, the glands of the neck enlarged and indurated. After two vaccinations, in as many weeks no alteration could be seen except increased secretion of pus from the ulcer on the palati; the third vaccination produced exfoliation of some bony parts in the ulcer; the fourth had no effect; the fifth produced ulceration of the tonsils and increase of syphilitic suffering, by increasing the pus from the ulcers on the prepuce. After the sixth vaccination the ulcers on the prepuce got cleaner and smaller, the ulcer on the palate covered with a cicatrix and narrower. The tonsils, which ulcerated after the third vaccination, now showed round surfaces; the seventh was without effect. The eighth and ninth succeeded, and all suppuration ceased. The scar on the prepuce showed no induration, except the tension, proper to all cicatrization. The induration of the glands on the neck did not disappear entirely yet. Patient was then obliged to leave the hospital, but vaccinated himself at home nineteen times, of which only three took. Three months afterwards the patient visited me, and there was not a trace of syphilis left. He remained in all sixty-three days in the hospital.

Case 2.—W. W., fifteen years old, lymphatic, suffered with syphilitic ulcers on the lips, nose and inguinal glands, for which he was salivated. The ulcers healed, and the buboes disappeared without suppuration. Eight months afterwards ulcers on the inside of the lips and tongue reappeared, also an eczematous syphilitic eruption on the right shoulder, and a moist herpes on the scrotum. The first vaccination with four punctures, was successful; the next, a week after, with twenty punctures, produced a strong general reaction in the whole organism, accompanied by tearing pains in the bones and some epistaxis. The influence of this vaccination on the syphilis was so important, that no third vaccination was necessary. The ulcers on the lips and tongue which suppurated more after the first vaccination, began to heal quickly after the second, and the eruptions disappeared twenty-six days after the first vaccination. The second vaccination produced consensual suffering of the glands of the right shoulder, which suppurated and discharged a large quantity of good pus.

Case 3.—Farmer E. T., nineteen years old, strong and robust. He had an indurated syphilitic ulcer near the frænulum, inguinal buboes and two condylomata on places where he had ulcers a year before. He was left three weeks without treatment. The first vaccination was not successful; the second brought on a slight fever, lasting twenty-four hours. The ulcer spread and gnawed through half the frænulum. The bubo suppurated. The third, fourth, and fifth vaccination left no results. The sixth produced a general reaction and opened the chancre, which was healed over. The bubo discharged large quantities of pus, the margins of the incision grew white and showed exclination to cicatrize. Next day epistaxis. The seventh vaccination took and produced the healing of both ulcers. The condylomata were excised after the fifth vaccination, and never returned; fifty-seven days were necessary for the radical cure.

Case 4.—W. M., student, eighteen years old, of lymphatic weakly constitution, had four years before his present disease a syphilitic ulcer on the prepuce, cured with Mercury in six weeks. Entered the hospital September 19th with a primary syphilitic ulcer on frænulum, existing already eleven days, and treated with astringents. Sept. 20. First vaccination with ten punctures on each thigh; next day general strong reaction of the organism, and on the punctures formation of pustules, filled with bloody matter. On the 24th the pustules were transformed into blisters of the size of a large hazelnut, and its contents darker. The diminished feverish state of the patient was kept up by the severe pain, which the patient felt all the time in the deep parts of the thighs. The blisters formed deep and large ulcers with mortified cellular tissue on the bottom. Rags, smeared with lard, were applied on the ulcers, and as the suppuration began to tell on him, he took inwardly Dct. Chinæ c. bi-mur. and nourishing diet with wine,and at night Ungu. opii over the sores. The ulcers now filled quickly with granulations and covered with a loose scar, raised in the centre over the niveau of the skin and showing inclination to form proud flesh. The chancre, meanwhile healed in the first three days after vaccination, opened and ran again for three or four days when suppuration diminished in the pustules, and left them perfectly cured. Those ulcerated pustules looked exactly like syphilitic gangrenous ulcers, and it took forty-seven days to eradicate the disease.

Case 5.—D., student, entered the hospital with three ulcers on the penis, not indurated, and one indurated on the frænulum. Had used Mercury for two weeks. Vaccinated with ten pustules on each thigh. Ulcers secreted now more freely, took on erethic character, and pained severely, feverish and œdematous; five days after secretion diminished, and ulcers began to cover with a yellowish crust. This crust loosened itself from the edges and left a tender scar. The ulcer on the prepuce lost at that time also its syphilitic character, got cleaner and covered with granulations, and healing from the edges towards the centre. Twenty-four days after the first vaccination, the second was performed with four punctures on each thigh; the interim lasted so long on account of the feverish state of the patient. Both vaccinations took and a cure was effected in twenty-seven days.

Case 6.—M. R., aged twenty-five years, entered hospital with a phimosis, which he had from his birth, and a syphilitic ulcer on the penis. On the internal side of the prepuce was also an ulcer, of which the size could not correctly be estimated, on account of the phimosis. Patient also suffered with chronic gonorrhœa. After urinating he felt severe cutting pains in the prepuce. Patient also had swelling of the inguinal glands, painful to the touch. The ulcers appeared after coitus, the gonorrhœa had already lasted over a year. Before entering hospital the patient had already taken one and a half grain præc. rub. The first vaccination of six punctures on each thigh took without any feverish reaction. The external ulcer decreased, but the internal suppuration and gonorrhœa increased. The external one took the character of a simple ulcer with pure red bottom. The buboes disappeared five weeks after the first vaccination, when a second one with seven punctures was made on each thigh. Now the external ulcer healed, suppuration from the internal ulcer decreased, only a little irritation after urinating remained in the urethra, for which he took a weak solution of Zinc.-chlor. Two vaccinations and thirty days sufficed for the perfect cure of this patient, when the operation for phimosis was performed by a circular incision, which healed per primam intentionem.

Case 8.—H. O., twenty-two years old, of weakly scrofulous constitution. He got syphilis at the age of twenty-one years, and has it yet. May, 1859, two weeks after coitus he had excoriations near the root of the penis and on the scrotum. Enlarging they began to moisten and formed flat ulcers, similar to that produced by the junction of several mucous pustules. Patient felt now severe boring bains in the long bones, keeping no regular time in their exacerbations, and syphilitic eruptions, which patient could not describe, and corroding ulcers (ulcera serpiginosa) appeared on the front and internal side of both tibiæ. We also found ulcers on the palate and tuberculous exanthema over the whole body. Some of the tubercles had already ulcerated, others formed blisters and peeled off. Sept. 24, first vaccination. Severe feverish reaction, lasting a week, followed with epistaxis. Ulcers pained severely, edges inflamed and swollen, especially round the ulcers of the tibia, where they simulated the demarcation line of gangrene. The increased secretion from the ulcers lasted a week, after which a crust formed over them. Thirteen days after the first vaccination the pustules burst and got covered with a crust, with severe headache, fever, and epistaxis. Eruption decreasing. On October 2, second vaccination, followed by moderate fever. Crusts fell off now, leaving dark red spots of scorbutic appearance. The ulcers on the palate remained in statu quo. The tubercles encrusted, which falling off, left dark red spots. Ten days after second vaccination the ulcers on palate cleaned themselves and began to cicatrice from the edges. Those tubercles, which did not ulcerate, disappeared without marks, others vesicated, peeled off and vanished. On October 28, third vaccination of five punctures on every extremity. Severe reaction, but not of so long duration as after the first two vaccinations. The ulcers on palate exuded again gray matter, and the edges ulcerated anew. Where the exanthems used to be, patient felt itching. Three days after ulcers began to clean and healed in twenty-four hours. Fourth vaccination failed, also the fifth of ten punctures on every extremity; the sixth, of eight punctures on each arm, produced slight fever. Some eruption yet on the back. Every symptom of syphilis has disappeared except some dark red spots of the ulcers. Seventh vaccination and slight fever. Duration of treatment, seventy-six days.

Case 10.—I. M., nineteen years old, lymphatic. Ulcers on tonsils; five condylomata near the anus, of the size of a hazelnut, flat and moist, between the third and fourth toe, an inflamed suppurating spot. Last February, after coitus, had gonorrhœa and ulcer on penis, cured by Mercury. On Oct. 7th, first vaccination of six punctures on each thigh; fever for forty-eight hours. Condylomata dried up, also ulcers on foot, but tonsillar ulcers enlarged in breadth and depth. On Oct. 20th, second vaccination of fourteen punctures on each arm, fever for twenty-four hours. Condylomata, though smaller by half, moist again, tonsillar ulcers spread, secrete largely, uvula infiltrated. On Oct. 30th, third vaccination of twelve pustules on arms and feet. Severe fever for forty-eight hours; the infiltration on uvula and tonsils disappeared, ulcers flattened so that they could be taken for excoriations on the mucous membrane. Condylomata left only coppered spots. Although cured by the 12th of November, another vaccination was made, which failed, thirty-five days sufficed for a cure. Dr. Jeltschinsky had so far sixty clinical and forty private patients, who were all thoroughly cured by vaccination.

IV. In whichever form syphilis may appear, vaccination always produces some alteration from the usual course. When we look at the course of a primary syphilitic ulcer, we see it enlarging during the time of reaction; from the vaccination inflammation spreads, suppuration increases, and what was before not painful, now gets sensitive. With decreasing fever the local symptoms also decrease in the syphilitic ulcer with all consensual symptoms in the neighborhood of the ulcers. The second vaccination will produce the same course, only weaker, and a soft chancre will certainly be cured now. Were the ulcer large and deep, edges and bottom hard, and when the whole appearance of the ulcer shows a large adaptation of the organism to the syphilitic virus,—or if the ulcer has already lasted for a length of time, then we find the irritable state, in consequence of the first vaccination, more durable; the second vaccination hardly ever alters this state and a third one is necessary, producing first increased secretion in the ulcer, and then cicatrization and cure. The scars, left after the cure of a primary syphilitic ulcer in consequence of vaccination, can be divided in three forms. The first shows neither induration nor loss of substance, lies on the niveau and can only be seen by a practised eye. The second or indurated ones show destruction and loss of substance; the third sometimes gets as hard as gristle, rising above the niveau of the adjacent tissues. By continuing the vaccination in subjects with such scars, we will find: the flat scars remain unaltered; the second or deepened scars will show after every vaccination an inclination to ulcerate anew, swell, get moist and painful, even ulcerate for a few days and heal over freshly. At any rate, the deepening lessens with every vaccination, till at last the skin is of equal height everywhere; the third or raised scar either loses by degrees its induration, sinking into the level or ulcerates anew with every vaccination, secreting more pus and then heals over. Thus the two last syphilitic ulcers are reduced by repeated vaccination to flat scars. When those changes appear very slowly, we may expect secondary syphilitic symptoms, ushered in sometimes by buboes; but here we find also alterations from the usual course. The bubo, after vaccination, suppurates more frequently and quicker, especially when it comes before the appearance of eruptions and other secondary symptoms; every repeated vaccination quickens the suppuration, and when opened, we see the same vascillations which we observed in the ulcers and scars. But when the bubo appears after the eruptions (secondary bubo), then suppuration is tardy, and after opening, heals quickly; shows, however, with every new reaction after vaccination an inclination to suppurate, but not in the scar, as we saw in the quickly-healed ulcers, but in the glands, which get affected deeper and deeper. In one patient I had to open the same bubo four times.

The influence of vaccine on gonorrhœa we don't know exactly, as we only vaccinated patients who suffered also with other syphilitic symptoms. We had eleven such cases: in seven of the eleven the gonorrhœa under vaccination disappeared quicker than the syphilides and chancre; if the clap was already chronic, it became acute again before disappearing. For the four others we were obliged to use a weak solution of Chloride of Zinc (gr. i to ℥j. water) as injection in the urethra, then only secreting mere mucus, but no more pus.

Secondary ulcers run the same course as primary ones, and their cicatrices, be they ever so large in extent, are subject to the same laws as those of primary ulcers, and we see in them the same plasticity, equalising them with the circumjacent tissues. The course of syphilides, under the influence of vaccination, is quicker, the dry ones scale off more rapidly and those which suppurate begin to itch, pain, moisten and suppurate, form a crust, which, falling off, sometimes forms a second one. Instead of leaving in healing over a more or less ugly scar, they cover themselves under vaccination with a regular scar, repairing all loss of substance. They pass, as it were, from their inactive chronic course in a more acute one. Even tertiary syphilitic symptoms are amenable to the influence of vaccination, only the nightly bone-pains increase on the days when a general reaction of the organism through vaccination takes place.

Fifth Period.—We have never yet found any organism, which was not susceptible to vaccination, when suffering under syphilis. We had a patient, with whom vaccination failed six times as child and youth; we vaccinated him five times without effect, the sixth produced a fever with pustulation, and the succeeding ones were all successful. Another question arises: are there no limits for this receptibility? Formerly the opinion was, that one vaccination saturated the organism and rendered it innocuous to small-pox, at least for the term of seven years.—It is also commonly said, that he, who had typhus once, will not suffer from it a second time; but does that prove, that the body is saturated with typhoid miasma? and could we not produce a new typhus by inoculating such a person with some typhoid matter? There is a vast difference in the infection per contagium and per miasma. It is possible, that the vaccinated organism is really protected against getting small-pox per miasma, but it does not prove, that he is saturated with vaccine. Although the syphilisators may have reached the limits of saturating the organism with syphilitic poison, yet there is a great difference between the two; vaccine being volatile, remaining only for a short time in the organism, and producing quickly passing local and general symptoms, syphilis on the contrary is constant, slowly passing off chronic; the reaction carries the same difference, and if we could fix the vaccine on the body for a longer time, it would sooner destroy the organism, than saturate it. Life of the existing organism has nothing fixed, immutable, it is only a connection of phenomena, quickly changed one by the other, and, therefore, it is impossible, in spite of the syphilizators, to saturate the body without any poison, and thus to preserve it from its virulence. I do not mean to say, that secondary or tertiary syphilitic symptoms could not appear even years after the first infection, for facts are stubborn, but we say, that the syphilitic virus does not lie unchanged and inactive in the body. This very quality of the living body in its metamorphosis, transforms the poison into a non-contagious one. "1. Vaccination cures syphilis in all its forms. 2. Every organism suffering with syphilis is subject to the action of vaccine. 3. There are no limits to the beneficial influence of vaccine on the organism, so that the patient even in repeated infection by syphilis will always find his remedy in vaccination." These are three true axioms.

Sixth Period.—Is the action of vaccine dynamic? a word without explaining anything! is it a chemical action? Does vaccine and syphilis combine together in organic chemical union, wherein the latter loses its destroying power? This brings us to the very interesting question: Can vaccine pus, taken from a syphilitic patient, and transferred to a healthy subject, transfer with the vaccine also the syphilis? Foucart (Gaz. des Hospitaux, No. 78, 1855,) proves, that vaccine always remains true to itself, producing only vaccine pustules. Guersant and Blache (Rapport du Comité du Vaccine, p. 401—413) affirms, "that vaccine, mixed up with other diseases producing matter, alters neither one, producing only vaccine pustules. Paupin, who has vaccinated several thousand children in a few years, affirms, that vaccine, taken from children, suffering with scrofula, syphilis or other exanthemata, never transfers those diseases on healthy children, but produces only the specific vaccine pustule. Bousquet tried it purposely, and never could produce syphilis on healthy children. Hebra shares the same opinion. Sigmund and Friedinger mixed chancre pus and vaccine pus together, which produced always only chancre; wherefrom Bamberger concludes, that the chancre poison is the stronger of the two, preventing the action of the latter; but such vaccine syphilitic ulcers are not true chancre, do not need any mercurial treatment, and heal spontaneously under tonic treatment, never leaving any secondary symptoms." A possibility of transferring syphilis through vaccination, we grant, especially when vaccination produces only vesicles, not pustules, and then only accompanied by very slight feverish reaction. Therefore, does syphilis, under the influence of vaccine pus through chemical alteration, despoil it of its power? and cannot thus the beneficial influence of vaccine be explained for the cure of syphilis? This we deny in *toto!* for by vaccinating syphilitic patients with *pure vaccine matter* we perceive the same pustule, as when vaccinated with a mixture of syphilis and vaccine virus. Let us remember, that this pustule frequently alters to an ulcer, similar to the syphilitic one, also that in the period of dessication it keeps its similarity to rupia, and when the scab falls off, a copper-colored spot remains, and we cannot help to come to the conclusion, that in the vaccine pustule of the syphilitic patient there is an undoubted admixture of syphilitic virus; and furthermore, that in the living organism, under the influence of vital provers, the vaccine does not chemically alter the syphilitic virus, neither can vaccine be considered chemically a direct antidote to syphilis.

There is one way left to decide this question: "the physiological." The syphilis consists of two essential moments: entrance of the syphilitic poison in the organism and its increase in it. Either moment produces a series of symptoms, pointing to the presence of the syphilitic poison in the organism, be it more or less, and we take the whole series of syphilitic symptoms, from the primary ulcer up to the bone pains, only as reactive efforts of nature to get rid of it. Those two essential moments give also the two essential indications for the cure. The moment of its entry in the body requires from the physician remedies, *to prevent, if possible, the entry of the poison.* His next duty is to destroy that poison, before it increases in the organism, producing its peculiar symptoms. Nature's way of elimination are: the ulcer, the bubo, the eruption, and the physician has only to follow those guides of nature; 1. by aiding the organism, to eliminate the poison through critical symptoms as ulcers, eruptions, &c.; 2. by ridding the organism of the poison through the internal organs, *without prejudicing its external elimination;* but all remedies and their action must be strictly adapted to the powers of the diseased organism and the degree of suffering, without acting inimically on all tissues and organs of the body. All this can be fulfilled without having recourse to specifics or following blindly any method. I have proposed vaccination as the radical cure of syphilis, but not as its specific antidote, for its whole merit consists only in producing a general reaction in the body by awakening the dormant powers of nature to battle with the syphilitic virus; the local and general reaction, depending on the presence of syphilis, does not suffice for its elimination, and thus it increases. A reaction, not inimical to the body is necessary, to give preponderance to the eliminating power over the producing; and this we get by vaccination. If one vaccination and one reaction do not suffice to eliminate the whole syphilis, we arouse even the ceased reaction and continue vaccination so long, till all the poison is eliminated. Whereas the repeated vaccination thus arouses more frequently the general reaction of the organism, carrying syphilis over into a more acute state, and comes nearer to those acute eruptions, which require from the physician nothing but the observance of the undisturbed course of the reaction of the organism, as in measles, scarlet fever, small-pox, typhus, &c. As another proof of the reactive power of vaccination, we could adduce, that vaccination in those patients, who had taken Mercury, always produced pains in the long bones of the extremities. This morbid state was, as it were, hidden, but as soon as we had produced a general vaccine reaction, it roused this latent state and we saw all the symptoms of the mercurial cachexia; only syphilis combined with hydrargyrosis was more obstinate, requiring an increased number of vaccinations to eradicate both evils.

But if we are all agreed that vaccination cures syphilis, thanks alone to the power of the organism, roused up by the vaccine fever, then let us inquire, if any other fever would give us the same results.

1. Dr. Berensohn treated a lady for secondary syphilis. She had ulcers on the tonsils and labia majora and minora and on the neck of the uterus. A suppurating bubo produced a most intense fever, to mitigate which the doctor was obliged to use cooling remedies. When the fever was broken, the bubo and all other ulcers were perfectly healed.

2. Dr. Lawrentjeff communicates the following case: A soldier suffered with indurated chancre of the most obstinate kind, for which he had taken Iod.-mercury without benefit. One morning we found him suffering under erysipelas, and when this was cured, every vestige of syphilis had also vanished. The same accident I observed six times.

3. Dr. Spiro had several cases, where typhus showed very beneficial influence on the eradication of syphilis and cured it entirely in several cases.

4. Intermittents have also cured syphilis.

5. Bamberger observed two cases of synchronous small-pox and secondary syphilis.

a. A woman, six months pregnant, entered the hospital in Würtzburg with small-pox, which run its usual course. Nearly all pustules were umbilicated and very large. When the period of dessication and peeling off arrived, some pustules on the neck, back, and inguinal region took the following aspect: they grew broader and flatter, and from their bottom sprouted irregular growth, surrounded in the beginning with an edge of pus, which dried up after a while, looking exactly like syphilides of the mucous membranes. On examination of the genitals a quantity of old mucous pustules and scars on the entrance of the vagina were found, exuding largely. The glands on the neck were also swollen. The other case was similar to the first.

b. Syphilization as a therapeutic means, is also nothing else than a beneficial effect of the organism to elaborate the poison from the body, for we see in the syphilidized organism, that the course of the syphilitic symptoms remains the same, as under the influence of vaccination, only the changes pass off slower and are, therefore, not so sharply marked, as after vaccination. This is easily understood by remarking, that vaccine in consequence of its volatility rouses a more energetic and more corresponding reaction in the organism, than syphilization; giving the former also a great preponderance over the latter, in hastening its course and thus the cure and in its more general availability in the practice.

Tenth Period.—To the radical cure of syphilis vaccination suffices: We never used any remedy ever applied against it.

To keep irritation off, lint dipped in sweet oil, was used. All our patients followed their usual avocations, only during the reactionary fever we advised them to keep the room. Every one could use his accustomed food, and those used to spirits were not deprived of their drams. Our dietetic treatment is therefore diametrically opposed to all other methods, especially the mercurial, and vastly more pleasing to the patient. Considering also all local syphilitic appearances as reactionary measures to expel the virus, we never used any local measures to banish them, which by moderating suppuration, healing over the ulcers and destroying the eruptions, obstruct that expulsion and thus cheat physician and patient. Medicines are only permitted to be used, first, to mitigate the vaccine reaction, when not corresponding to the powers of the organism; second, to keep in check the destroying influence of those syphilitic symptoms, which do not lose their reactionary power, and are only applied to regulate the reactive symptoms of the organism.

Closely connected with the idea of a general reaction in the organism, is the thought of exalted excretion of some organs and the depression of others. The abnormal sensibility, showing itself either as chill, heat, increased circulation, and quicker breathing, prove an irritated state of the vital process; the loss of appetite a sinking of the nutrition of the organism. Both together show the increased metamorphosis in the body, its quicker living, and thus its quicker exhaustion, and necessitating us to prescribe not only good nourishment and wine, but obliging us sometimes to resort to the whole series of pharmaceutical strengthening remedies, to keep up the supply. The organism after repeated vaccination, has lost strength, and not only the pustules would take on an adynamic character, but the critical syphilitical appearances would remain in statu quo, or according to the degree of debility would take on a destructive adynamic character, if we are not faithful in keeping up the strength of the patient.

Eleventh Period.—The vaccine reaction, radically curing the syphilis, does not remain without influence on other diseases, simultaneously present in the body. According to the disease and the resisting power of the organism, this influence can be beneficial or destructive. The question about the noxious sequels of vaccination in general, is still an open one with a great many, but we have come to the conclusion, that vaccination is but an incitation for the development of different diseases, whose first beginning was already present in the body before vaccination. This proposition is founded on the same quality of vaccine, to incite a general reaction in the body. Speaking about the vaccine fever, we remarked, how careful we have to be with the number of punctures, according to the severe reactionary symptoms, which sometimes threaten. We treated two girls who had whooping cough and secondary syphilis. Vaccination produced such severe paroxysm of coughing, as to make us desist from further pustulation. We treated the cough, and five weeks after the last vaccination both diseases were cured. The same precaution is necessary in the hæmorrhagic diathesis, although that diathesis is only necessarily dangerous, when it is a symptom of tubercular dyscrasia. Slight bleedings from the nose, uterus, or anus, did not deter us from repeating the vaccination, and although the bleeding repeated itself after every vaccination, the patient felt rather fresher and lighter for it.

We come now to treat of contra-indications. These are conditional and unconditional. General debility, and therefore atonic character of syphilitic symptoms, presents a conditional contra-indication to vaccination, requiring preceding nourishing treatment, which has to go hand and in hand with the vaccination, per contra-syphilis with acute inflammatory character is benefitted by a preparatory antiphlogistic treatment. Tubercular dyscrasia is an unconditional contra-indication, also every other disease, which at a general reaction of the organism takes on itself an acute character, destructive to the organism.

Twelfth Period.—Application of vaccination to the prophylactic cure of Syphilis. When any person ever labored under syphilis, he wishes to know, if every particle of the dyscrasia has been expelled, and I would recommend such a prophylactic vaccination to any one who intends to marry, if he ever had syphilis. Such a course would save conscientious troubles to the parent, who sinned in his youth, and would save thousands of innocent little sufferers, who die, because their parents did not live as they ought to have done. Let us close with a history of such a case.

October, 1859. An officer came to me, with the question, if he could safely marry. A year before he had had chancre on the prepuce and buboes, cured by Mer. cor. ½ gr. p. diem and Sarsaparilla. A few months after he had a swelling of the inguinal glands, dispersed by Kali-iod. and Sarsap., and then he enjoyed uninterrupted good health. The first vaccination of sixteen punctures on each arm produced a roseola on the chest and back, and a second one spread the eruption over the face and upper extremities. Four more successful vaccinations were needed to liberate and expel the lurking-poison, and to render the patient fit for the important duties of married life.

ARTICLE XXXIV.—*Syphilization Applied to Children.* By W. BOECK, Professor of the University of Christiania.

MR. Auzias Turenne was the first to state the following law: The reiterated inoculations of the syphilitic virus render the organism refractory to the action of this virus and place it in a state called syphilization.

Mr. Sperino, of Turin, has employed this for the cure of venereal maladies, at the Syphilocome Hospital, and had commenced his experiences on the human organism before he was aware that Mr. Turenne had already done this, as he announced before the Academy of Sciences, Nov., 1850. One of the most useful discoveries of modern medicine has met with all the obstacles that it is possible to oppose to a scientific question. The Academy of Medicine condemned it without possessing the elements necessary to a judgment, without knowing it, and most physicians followed their example.

To destroy the susceptibility of the organism for the syphilitic virus, to annihilate the syphilitic dyscrasy, radically to cure syphilis, not merely adjourning it for a variable period to avoid relapses, to prevent its manifestations upon the child too often the victim of a malady contracted by its parents or its grand parents, whether by their fault or not, this, if not too good to be true, was too fine to be believed, and yet consult whatever documents science possesses relative to the cure of syphilis. In face of the uncertainties of the often deplorable effects of the usual medications, was there need of a very deep conviction, in order to experiment with the new method, however paradoxal it might appear on the first aspect? And once in this path of serious experimentation, we should soon have been convinced of its reality and of its happy results.

I made my own first experiments towards the end of 1852, and published them in 1854 in my pamphlet, *Syphilizationen Studeret ved Sygesengen*. In an extract from this, which appeared in *La Revue Medico Chirurgicale*, and later in the work which I published in connection with Mr. Danielsen, I drew from my experiments the following inferences:

1. Repeated inoculations of the syphilitic virus confer immunity against this virus.

2. The syphilitic manifestations existing at the commencement of syphilization, disappear if the inoculation be continued.

3. Far from exercising a similar influence over the general health, syphilization improves it, when it was previously impaired.

I have persisted in syphilization as a curative method. Within the last two years, from '54 to '56, I have syphilized sixty-three individuals, of whom thirty-six had not been subjected to any previous treatment, and of whom twenty-seven had been mercurialized. I have syphilized only persons already the subjects of constitutional syphilis, I have consequently introduced into their organisms no virus foreign to that which already contaminated them. I have always opposed prophylactic syphilization, regarding it as absurd to use preservative measures against a malady, exposure to which is for the most part voluntary. My method is to inoculate the pus of a primary ulcer with three pricks on each arm and thigh. Mr. Sperino prefers the sides of the breast, as the part where cicatrices are least evident. I have observed the ulcers always smaller on the breast and arms than on the thighs, and the inoculations no longer succeeded there when they still continued to take effect upon the thighs. This rule has but few exceptions, consequently I prefer the thighs.

I have generally inoculated with the pus of the last previous inoculation, but when this had not developed characteristically, I have resorted to the pus of older chancres, and sometimes have employed throughout the entire treatment, the pus of the first inoculations, which I believe to be the most intense as virus, for I hoped thus to abridge the duration of the treatment. My observations are not yet sufficiently numerous to be conclusive on this point. I propose to demonstrate in a special work, the differences in the intensity of syphilitic pus. It is sustained in my pre-cited work, p. 184 and seq.

The number of generations of the chancre, during which the pus coming from different persons is inoculable, varies. The idiosyncrasy of the patient exercises a manifest influence, as is proved by the simultaneous inoculation of several persons with the pus borrowed from the same chancre; yet the difference among them is less marked than occurs when we operate upon the same individual with pus drawn from various persons.

In a given series of inoculations, the pus of the first ulcers produces greater effect than that of the last ulcers. By observing this fact and its consequences, we may continue the syphilization during a longer time with the same pus. If the pus is near losing its intensity in a syphilized subject, transplant it upon another person, affected with constitutional syphilis, but who has not been subjected to syphilization; large pustules will be then produced. If then it be carried back upon the first individual, it will produce results more intense than before and may do so for several successive inoculations.

A pus that acts strongly on one individual, may, when transplanted upon another, act but feebly, and acquire a greater intensity only after several inoculations practised upon this individual with the pus taken from his first chancres. Thus from the idiosyncracy of the subject, or some unknown cause, there are exceptions to the general law, that the first inoculations produced the largest chancres and the most potent virus.

[Here Mr. Bœck proceeds to state and criticise Mr. Clerc's doctrine of the chancroid or simple non-infecting chancre, which he does not well understand, and thinks that he opposes. There is in reality no contradiction between the views sustained by Mr. Clerc and his school, and the observations of Mr. Bœck to the effect that the virus of the chancroid or non-indurated chancre is the most intense, produces local ulcers of more gravity, and that it is the only virus available for syphilization. The virus of the indurated or infecting chancre is not susceptible of reinoculation on the body that bears it, and no experiments have yet, that I am aware, established that it is inoculable upon any other body already infected with constitutional syphilis, and thus a proper subject of syphilization. Lazarus.]

In the *Norskmagazin for Laegevidenskaben*, Vol. 7, p. 478, I have cited observations from which it appears that the only chancres inoculable here in Christiania were contracted either in foreign countries, or else very soon after the contagion of such. The suppurating bubo is very frequent in connection with them.

Chancres are inoculable in Christiania only from the spring to the end of the fall, seldom in the winter months. But I have often seen in the winter non-inoculable chancres indurate and initiate a constitutional syphilis.* The number of chancres diminishes in the last months of winter. All observers in Norway agree that syphilis would soon disappear from this country, were it not transplanted here from abroad. My own observation obliges me to admit that the simple chancre may produce the indurated chancre. This latter always appeared when we had during some time simple inoculable chancres accompanied with suppurating buboes. After the first inoculations, and this with subjects who have contracted their chancres abroad, we often see the ulcers become large and truly phagedenic, but this need give no anxiety, and the syphilization should be continued as above described. If it be suspended, the phagedenism progresses, whereas in continuing the inoculations we are sure to get the better of it. *We never observe phagedenism when we make use of a pus that has passed through several individual organisms, in successive series of inoculations*, and the ulcers in such cases are rarely large. Hence I have deemed it suitable to *commence syphilization with old pus of this kind and to continue with it until the susceptibility of the organism for the syphilitic virus was somewhat diminished.* Has a pus of less intensity, less syphilizing power? Would it render the course of a syphilization more tedious? These are questions which I cannot answer. My impression, from what I have hitherto observed is, however, to the contrary. I believe that the rapidity of absorption maintains an inverse ratio to the intensity of the virus.

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* This is the law of the non-inoculable chancre, not merely for the winter, but for all seasons, as recognized by Mr. Clerc, by Mr. Ricord and the Midi School of our day.

When I could no longer obtain any effect from one virus, I sought another, until I reached the period of complete immunity against every kind of pus. In operating thus, we inoculate on the patient several hundred chancres. Of these only twenty or thirty at the most, acquire a certain size and leave appreciable cicatrices. The rest are very small, and rather resemble excoriations than ulcers. It is probable that such inoculations, which practised in the latter periods of syphilization, no longer produce the characteristic ulceration, may be useless towards the radical cure. I have deemed it however, my duty to make them on account of the importance of security against relapses, and because I wished to study the strength of the syphilitic virus. It is probable also that we could dispense with making twelve inoculations every three days. One would perhaps suffice, and greater intervals might be set between each two inoculations. Syphilization would perhaps be complete by this procedure, but I had obtained too good results by my first method, to dare to change anything in it. The small number of my patients, besides, opposed great variations. Complete syphilization requires two or three months. Towards this epoch the immunity is perfect. This fact is incontestible for any one who will take the trouble to see for himself.

The physiological side of this question early drew attention

A. Retzius took the greatest interest in my first experiments and often begged me to continue them. At his suggestion the experiments published by Dr. Sternberg* were instituted in the service of Dr. Carlson, of Stockholm, whose results are the same as my own. Is the immunity guaranteed by syphilization permanent? I am disposed to believe so, but I have forborne to test the fact by fresh inoculations upon patients once cured.

The law stated by Ricord that constitutional syphilis cannot occur twice in the same individual, may perhaps not apply to patients, who, by the extinction of the syphilitic virus in their organisms through successive inoculations, have been brought into a state of soundness comparable to those who have never had syphilis. I have practised fresh inoculations, however, on patients who previous to syphilization had undergone a mercurial treatment. I have shown in the pre-cited work that relapses occured among syphilized persons who had previously taken mercurial courses, yet that these relapses were much less severe than the primitive affection.

That it is indeed the previous mercurialization which hinders syphilization from taking complete effect, is confirmed by the influence of Iodine, under which pustules and ulcers scarcely developed before by inoculation, become larger.

The cases on which the foregoing observations are made, number by hundreds, all of which prove the disappearance of syphilitic symptoms in regular proportion to the progress of syphilization. The cure requires a variable time, sometimes several months, but it comes with so much certainty as to banish every apprehension.

We are all conversant with the fact of spontaneous disappearance of the morbid phenomena of syphilis, and if this were observed now and then or under syphilization, we might call it a mere coincidence. But this order of facts is the exception in the former case; while in syphilization, it is the rule, and the partial exceptions to which are confined to patients who have previously been mercurialized.

This regular disappearance of the syphilitic manifestations, this mathematical certainty of cure by syphilization, leads us to state the following questions: Is syphilization an isolated fact? Is the syphilitic virus the only virus that can destroy itself? The constant order that reigns in nature teaches otherwise. There must be one general law for the animal viruses. In order to find it, we must follow in the track of syphilization and inoculate the animal viruses every time the occasion presents itself. Why not try it upon two maladies hitherto refractory to our art,—hydrophobia and the glanders? Successive inoculations might prevail, but here will arise a question of the right methods of inoculation, for these are acute diseases. Such experiments would be the more legitimate, on account of the fatality of the diseases in question, and because, from the nature of their subjects, they would usually be made *in corpore vili.*

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* Our Syphilizationen jänite några med densamina auställda För-Söek. Hygica, 1855, Nov.

The duration of a syphilization depends in part at least on the length of time since the syphilis to be treated was contracted, and the character of its actual phenomena which corresponds to the period. Thus the papulous and squamous exanthems require more time than the roseola, than mucous tubercles and other secondary forms which are earlier developed.

There exist, however, some exceptions to the regularity with which syphilitic phenomena disappear. Sometimes in the midst of a syphilization, supervenes a fresh eruption analogous to the primitive, especially when this was papular. Thrice, I have seen a papular erythema with high fever and general distress break out several weeks after the commencement of the syphilization. The long duration of the erythema confirmed its syphilitic origin. Often also, I will say even generally, we see in persons who have taken no Mercury, some syphilitic phenomena analogous to those against which the treatment had been directed, towards the epoch of final immunity, and even after this has been secured. Such are excoriations, or exsudata in the throat, or mucous tubercles at the anus, &c. Such phenomena have no gravity, they disappear spontaneously at the end of a few weeks. This fact has been reproduced often enough to prevent any anxiety respecting it. It goes to prove, however, that to complete a syphilization requires a very long time. Most of these patients passed four months at the hospital. One old woman, who in the winter of '55, had left the hospital after a treatment of less than three months, returned some weeks afterwards very anxious on account of some excoriations that showed themselves upon the palate. She was readmitted but not subjected to any treatment, and got well of herself in the course of a few weeks. Such facts cannot then be considered as relapses. Their constant appearance and their constant disappearance without any medication would lead us to rank them in the series of manifestations produced in the organism by syphilization. When they have once disappeared, these excoriations, &c., &c., are never more reproduced. (We are still speaking of persons who have not undergone any mercurial treatment.)

The patients under treatment by syphilization are encouraged to live in the open air, unless the cold be excessive, to attend as usual to their business, to eat and drink according to their tastes, strong wines and ardent spirits excepted, so that syphilization is far more easily borne than the mercurial course. After Mercury has done its best, a careful system of life is necessitated in order to avoid recalling the dyscrasy subordinated but not eradicated. After syphilization, on the contrary, the patient may expose himself to all sorts of morbific causes, brave cold and rain with as much impunity as one that had never been sick. Some of my patients of this category have now been three years since their cure. Not a single relapse has occurred.

Before passing to the category of the previously mercurialized, let me say that I have had among my patients many cases of syphilitic iritis, and that I have cured it in every case completely, and without Mercury, in the course of syphilization.

Patients previously mercurialized are to be considered in several distinct sub-groups relatively to syphilization. *First.* Affections of the skin and mucous membranes. Secondary symptoms, not inveterate, yield to syphilization with as much ease and regularity as though no Mercury had been taken. Whether little or much has actually been taken makes little or no difference. The more inveterate forms of cutaneous disease (such as rupia, serpiginous tubercles) resist longer. In these cases an eruption is observed, of the same nature as before the syphilization, at the moment when the cure is supposed to be near at hand. This second eruption does not extend so deeply as the first: it stops at the skin, and rarely reaches the sub-cutaneous cellular tissue. It may be accompanied with a very high inflammation. It is well then to forewarn patients of the possibility of this accident, to remove their anxiety at its appearance. At other times the symptoms show little amelioration after quite a long treatment, and when the inoculations have nearly ceased to take effect. In these cases I give Iodine, which, although it may have been given successfully before, now on the contrary, since the inoculation, acts very promptly, and the subsequent inoculations produce larger ulcers.

Second. Affections of the osseous system in mercurialized subjects are little influenced by syphilization.

Third. Nervous affections—hyperæsthesia, paresia, or *complete paralysis,*—when these cöexist with cutaneous affections they have proved amenable to syphilization. Otherwise not, or but little so, at least directly; yet the great indication remains, to destroy the dyscrasia on which they now depend.

The average duration of the treatment by syphilization for mercurialized patients is six months; it is frequently a year and more. Of thirty-seven patients who had taken Mercury, I have observed relapses in seven; in some of these several successive relapses, which have each time been treated by syphilization. Each was less serious than the preceding, whence we must conclude, that the inoculation of fresh syphilitic matter has ameliorated the constitutional state.

In reference to these patients I have to repeat, that no new sufferings are to be feared. The lassitude, sleeplessness, rheumatic pains, and other morbid phenomena concomitant of syphilis disappear before syphilization, and the patients often gain flesh under the treatment. They always declare a decided improvement three or four weeks after the commencement of the syphilization, and when it is finished they can immediately resume the most arduous labors.

Far from risking the patient's life, as the enemies of syphilization have pretended, by the possible phagedenism of artificial ulcers, we have in syphilization an infallible means of combatting that which so often complicates the chancres contracted in coition. During the first excitement about syphilization in Paris, an example of fatal erysipelas was cited as having occurred in a patient subjected to this treatment. But on examination of the documents furnished, we find here a *post hoc et non propter hoc.* The same thing might have occurred after any other trifling wound. It has not been repeated in an experience more extended.

My successes with adults induced me to employ syphilization with children afflicted with hereditary syphilis. We know that they often perish under the mercurial treatment by the gastro-enteritis which it develops, while the distant consequences of this remedy are more fatal in the child than in the adult. It was not without trepidation that I made my first syphilization of babes; but the result soon showed me how groundless were my fears. The pustules and ulcers were so small that they would hardly serve for fresh inoculations. I subjoin the details of a few cases. (These will be reserved for our next number.)

Dr. Bœck observes, that the pus of the first inoculation can be re-inoculated for three generations only in succession on the infant; also that the pus of the first artificial ulcers preserved its infecting power for nearly a month, which is longer than the pus of the adult has been preserved. The first ulcers were two months in healing, and immunity was obtained, as in the adult, by the end of the fourth month. The syphilitic phenomena begin to disappear about the twenty-seventh day, and disappear completely between the fourth and fifth month. I have inoculated two points every fourth or fifth day. The pustule appears from the second to the fourth day, and is from 1 to 2½ lines in diameter, less depressed in the centre, as well as smaller than in the adult, and not painful; the scars they leave are slightly depressed, and little or not at all colored.

Children vary as much as adults in their susceptibility towards the syphilitic virus; but their susceptibility towards any particular pus is always sooner exhausted. They are liable to relapse if they nurse at the breast of a woman who is undergoing mercurial treatment. Syphilization has no unfavorable influence over their general health; on the contrary, they grow large and fat.

ARTICLE XXXV.—*The Hæmorrhoidal Malady.* By Dr. E. ESCALLIER. (From *l'Art Medicale.*)

PHYSICIANS are daily called to treat patients in whom their relatives fear organic diseases, but who are only the subjects of nervous or inflammatory disorders, more or less serious, over which rational medication, founded on a good diagnosis, nearly always prevails. An error in the diagnosis of these affections by eminent practitioners has laid the foundations of fortune and fame for many a charlatan.

Most of those cases observed by me have seemed to belong to the *hæmorrhoidal malady.* I do not speak of piles, which are only a lesion in this malady, but of an affection characterized fundamentally and originally by phenomena of congestion, more or less decided, in the pelvic circulation, and which at a later period often give place to fluxionary phenomena, inflammatory and spasmodic, the most varied in the different organs of the economy.

It is not indeed only on the side of the digestive tube that troubles connected with the hæmorrhoidal malady are manifested. This system is doubtless the most frequently affected, and then we observe the greater number of symptoms referred to chronic gastritis, to gastro enteralgia, to flatulence, to engorgements of the liver and obstructions of the portal system: finally all the phenomena of hypochondria. But outside of the digestive tube, and often inversely to the troubles of this system, the hæmorrhoidal malady may affect all the organs of the superior part of the body, and determine congestions more or less durable, sometimes complicated with inflammation, and soon accompanied with the most varied nervous symptoms; thence congestions and hæmorrhages of the lungs, of the heart, of the encephalon, and sometimes true inflammation of these organs; oftener chronic alterations of the respiratory passages, and hæmorrhoidal angina; thence especially neuroses, like the migraine, the facia neuralgia, the asthma, and others, capable of simulating the gravest maladies on the side of the respiratory system, and of the central organ of the circulation.

It is to this circumstance—of the habitual predominance of the hæmorrhoidal affection as a generative element of many chronic diseases, and especially of obstinate neuroses—that we must attribute the remarkable superiority, in the treatment of these diseases, of certain Hahnemannian remedies, such as Nux-vom., Sulphur, Calcarea, Lycopod., and in general those which belong to the class of remedies improperly called antipsorics.

These substances possess indeed as their primary action on the healthy animal organism the faculty of causing considerable disorder in the abdominal circulation, of favoring stases of blood, and consequently congestions, either proximate or distant, with their nervous or phlegmatic sequences. We understand then, according to the law of "*Similia*," the peculiar efficacy of these medicines in regulating the abdominal venous circulation, and dissipating sometimes with marvellous rapidity the accidents due to these disorders.

The same curative effects are produced by certain mineral waters, especially by the group, so remarkable, of the waters of Western Germany (Carlsbad, Kissingen, Hombourg, &c.); they are sovereign remedies for those neuroses so multiplied and tenacious, connected with the pathological state pre-cited, and go by the name of *deobstruent*. Dr. Porges, of Carlsbad, has demonstrated in his work, just published, on these celebrated springs, that all the maladies cured by their use depend on what he calls *abdominal venous plethora;* he has equally shown—what is well worth the trouble of being remarked by physicians—that these waters, taken in doses sufficient for men in good health, determine in them the varied accidents which they cure, even the symptoms of abdominal venous plethora.

This stated, I repeat that the hæmorrhoidal malady constitutes the most extended source of obstinate neuroses, often obscure and misunderstood. Even when they are at first recognized as nervous—seeing them resist the pretended antispasmodics, as well as tonics, sovereign remedies according to the theory of anæmia; finding them, on the contrary, aggravated under the influence of this treatment, which in fact exasperates and often complicates or transforms them; physicians form a diagnosis much more serious, such as that of deep-seated inflammation, structural disorganizations, &c.;

then a new treatment in conformity with this last diagnosis is instituted, as debilitating as the former was irritating, but equally fatal to the patient.

OBSERVATION.—*Spasmodic symptoms, connected with the menopause, and with a hæmorrhoidal state; predominance of the cardiac phenomena to the point of simulating a serious affection of the heart. Homœopathic treatment and cure.*

On November 15th, 1854, a lady, one of my patients, came to ask some hope or consolation for her friend, Madame B., whom her physician has declared affected with aneurism of the heart at its last period, for which he was unable to find even a palliative. I find a lady of fifty-three, tall, lean, and dark, on whose face are numerous pimples of *acne rosacea.* Her speech is feeble and painful; but this weakness evidently depends upon a sort of general prostration, and not upon the embarassment of the respiratory functions. She complains only of a slight cough, dry and infrequent; but of palpitations most distressing and continual, with aggravation when she eats and after having eaten, as well as in the recumbent position; the palpitations hinder her from sleeping, obliging her to change her position every moment. This vascular disturbance extended into the head, at last determines a sort of cerebral excitement, and especially hallucinations of the sense of hearing; she thinks she hears the report of cannon, rockets exploding, &c.; then she utters cries, and seems to be overcome by a sort of maniacal paroxysm. For some days past she has been reduced to a milk diet, and the palpitations have been somewhat diminished; but the weakness, already very great, has become extreme; she can now hardly rise from her seat; she is incapable of any manual labor; she faints several times in the course of the day; thinks herself dying, and those around her share this impression. She is prevented from moving about, rather by the sense of debility, than by her palpitations, which are rather diminished than increased by moderate movements, and which are especially relieved by the emission of flatus,—always abundant, but difficult to be rendered. After this information I began to conceive some doubt on the existence of the terrible malady which had been announced to me. Auscultation and subsequent details came to enlighten me upon its true nature. Auscultation and percussion gave only negative signs with respect to the heart and lungs; there was emphasis in the heart sounds, especially in the second sound, but no trace of bellows sound. The pulse was small and rather frequent, with irregular intermissions. There is no œdema about the ankles. On the other side, I learn that, having been amenorrhœic in her youth, she was then affected with an ascites, which required abdominal puncture, and afterwards yielded to Digitalis. Married twice, and the first time during ten years the marital act was never consummated, until the second marriage, and about the turn of life. Subject to flatulent dyspepsia, with constipation; the hysteria, which had been manifested under the most varied forms during her first marriage, returned July 26th (1854), which was promptly arrested. Afterwards, however, the hysterical paroxysms were renewed with still greater violence than before, and with gastralgia, for which sea-bathing was advised. She seemed better at first; but after the eighth bath, in the night the distressing palpitations appeared, and with the general state above-mentioned, to the exclusion of the hysterical paroxysms.

After this explanation, I declared to the husband, that there was hope of his wife's restoration. Prescribed *Metallicum-album* 24, and *Platina* 24, in solution, to be alternated twice a day, with meat soup for diet. This was November 15th.

Nov. 20th.—Notable amelioration. Since yesterday the heart is calm; she slept last night; her appetite is better; digestion easier; a very difficult stool on the 17th, since which a normal stool every day. Sacch.-lact.

Nov. 24th.—Progressive improvement; slight palpitations only after meals, and on lying down; cutlets have been well digested. She gains strength, but still complains of flatulence confined at different parts of the abdomen. (Wait.)

On the 25th I learn, that the cutlet taken at noon, and the bread-soup in the evening have disagreed; the night has been disturbed with risings to the throat, and weight at the epigastrium; this pressure is still felt, with impossibility to belch up the wind; continual yawns and frequent hiccough. The palpitations moderate, are effaced behind this group of symptoms. Nux-vom. 100, in water, two spoonsful every day.

Nov. 28th.—Amelioration. Stool yesterday difficult, but natural; has passed a good night; this morning brings up the wind easily; (Wait). The return of some analogous disturbance leads to the administration of *Carbo-veg.* 30.

On December 1st, a great amelioration succeeds.

Dec. 8th.—The intestinal movement continues normal.

From that time no more has been heard of palpitations; they were notably reduced indeed after the first days of the treatment. Madame B. has resumed her occupations and her ordinary life, disturbed sometimes by spasmodic attacks, usually gastralgic, connected with her constitutional state and menopausic period; but the central organ of circulation is never affected during these transient disorders.

In the following observation the symptoms of chronic endocarditis were much better characterized. As a cure has been effected, as a very decided anæmia coincided with the symptoms of endocarditis, and certainly added to their intensity, I am much rather tempted to attribute to anæmia all the troubles which others refer to a true organic lesion of the heart. The reader will judge for himself.

Fifth Observation.—*Anæmia and the menopause; symptoms of chronic endocarditis. Digitalis unavailing. Homœopathic treatment;—prompt return to health.*

Madame R., worker in lace, aged fifty, living at St. Paul-street, has been ill eighteen months. She is reported as affected by a cardiac aneurism, and regarded as incurable by a physician, who, having administered Digitalis to her in half a dozen forms, and seeing her still failing, month after month, declares he has nothing more to expect from nature.

The patient is in a state of complete prostration, her feet are swollen, the face pale and puffed, with violet hue of the lips. Seated in an arm-chair, she was not only unable to make a few steps without being held up and out of breath, but can hardly articulate a few words in succession; she remains indeed all the while breathless, and complains of palpitations, often attended with sensible rush of the blood and shootings in the region of the heart. These symptoms get worse on the least movement, and sometimes awaken her at night; they diminish sometimes when she lies on the left side. Let us add, that spells of dry cough come sometimes to increase the dyspnœa and the palpitations. The pulse is weak, small, intermittent; beats of the heart strong, clear, with very decided bellows and slight rasp sound at the first time. Pulmonary auscultation reveals nothing. The head is generally heavy, with frequent attacks of migraine, dazzling flashes in the eyes on rising; buzzings in the ears, and throbbings when lying down; the sleep is very much agitated. The appetite is fair, and the digestion; but the patient is subject to cramps in the stomach with vomiting. Stools generally soft and rather frequent; diarrhœa sometimes grayish, but without colics. Always menstruating copiously, she has within two years past been subject to uterine hæmorrhages, but not within the last two months. The urine is clear and copious.

August 21, 1851, I prescribed China in the fourth dilution, one drop in a glass of water, a spoonful morning and night.

Aug. 25th.—The patient is already much improved; more strength; better countenance; palpitations diminished, and no longer accompanied by either pain or cough; the pulse has more volume; she has slept all night. *Ferrum*, 12, in water, a teaspoonful in the morning.

Aug. 30th.—The improvement continued until yesterday morning; the œdema of the ankles has even disappeared; only since yesterday there is headache with darting and throbbing, especially at the occiput, aggravated by walking. *China* 5, in water, every morning.

Sept. 5th.—Immense improvement; during the last fortnight the patient has gained two pounds in weight, and no functional disorders remain, except slight palpitation and overaction of the heart. (Continue the China.)

Sept. 12th.—Only the palpitations remain. The patient has been taking a walk of nearly three miles. It is more than a year since she could have done half as much. Spigelia, 12, in water, once daily.

Sept. 20th.—Complains only of headache at night, with noises in the ears. During the week she had gained 600 gr. in weight. Chamomilla is given without effect. *China* 5, again on Oct. 9th, is followed by marked improvement. The paroxysms only appear when she walks too fast, or applies herself too closely to her work, which she has wished to resume energetically; the persisting bellows sound is very slight. She complains of great heat in the whole body when lying down. On account of this last symptom I prescribe Arsen.-alb. 24, in water, once a day.

Oct. 18th.—After the third dose of Arsenic clay colored (terre glaise) stools supervened and continue, attended with some palpitations. *Hepar*, 24, promptly arrests this diarrhœa. The palpitations yield to Spigelia 12, and China 12.

From November 18th auscultation no more reveals a bellows sound. I saw the patient occasionally during the years 1852 and '53. The circulation was never again disturbed, and she has continued to enjoy very good health up to this date, May, 1859.

Article XXXVI.—*Theory of Homœopathy.* By Dr. Altschul. A condensed translation by Dr. S. Lilienthal, of New-York.

In the history of medicine the history of civilization is reflected. That history knows so far only three modes of cure, based on principles more or less true.

1. The enantiopathic or antipathic method,—attacking the sick organ itself, and promoting through medicinal influences a contrary state of life: "*contraria contrariis opponenda;*" it is obliged to use strong and oft-repeated doses, and its method is a direct one.

2. The heteropathic or allopathic method, uses remedies producing neither contrary nor similar effects; but one entirely different (ἀλλοῖον), according to the principle "*aliena alienis amoveantur.*" This revulsive or derivative method is based on the laws of consensus and antagonism,—using also large and repeated doses, as by them the vital forces are derivated from the sick organ to healthy ones.

3. The homœopathic method, removing the disease by similarly-acting remedies. Here we only increase the vital process, re-acting on the diseased organ; and thus expel the disease according to the natural principle of "*Similia Similibus Curantur.*" This principle teaches us the true specific remedies, by teaching us the use of those remedies in specific cases which are able to produce a similar state of sickness.

At the present imperfect state of science every physician ought to be intimately acquainted with all three modes of cure, to be able to use either one according to his best knowledge. This insufficiency of the homœopathic principle, being based on the true law of nature, can be neither true nor absolute: it is only seemingly and relatively so. This insufficiency is only transient and extraneous to the homœopathic dogma. Those exceptions have nothing to do with pure homœopathy, and for us the law of similitude remains forever the only and supreme basis for the entire practical therapy.

As a curiosity, we might mention the following from a very old book. It reads thus, for the passage, Exodus XV., 23–25: "And when they came to Marah they could not drink of the waters of Marah, for they were bitter; and the Lord showed Moses a tree which, when he had cast into the waters, the waters were made sweet." We give the following exegetical explanation: Moses could have easily removed the bitter taste by the usual contrary treatment with sweet substances; but the Lord taught him better, showing him to do it by a bitter wood,—thus proving, that the truly natural way of cure is only, to cure bitterness by bitterness. Thus the Lord cured also wounds by wound-producing remedies. Hippocrates, "de Morbo Sacro," 3, 310, says: "Diseases are the easiest cured by what produces them;" and in "de locis in homine," 4, 421: "By similars diseases are produced and cured; what produces dysuria, cough, diarrhœa, and vomiting, will also cure them.

I. SCIENTIFIC BASIS FOR THE HOMŒOPATHIC LAW.

a. Hahnemann.—A weaker affection is removed by a stronger one, if the latter is very similar to the former in its symptoms; for: 1. The disease produced by the remedy is stronger than the natural one, as morbid matter has only the power to inoculate itself on the organism when it is disposed to it, and therefore neither every person, nor at all times are we liable to be affected by morbific matters; but every true medicine produces its effects at every time, under all circumstances, on every living man. Experience teaches therefore, that morbific matter possesses a subordinate, relative, and weaker power,—remedial powers an absolute, unconditional, and preponderating power of producing disease; therefore the weaker power will be annihilated by the stronger one—disease by the remedy—if: 2. The medicinal disease is similar to the natural one; for dissimilar diseases either keep themselves only suspended, but never cure one another—the stronger one running its course first, the weaker one afterwards; or they run their courses at the same time, each one, as it were, occupying their own region in the organism.

b. Altschul.—Polar antagonism shows itself in a continual flight and an equally continual attraction—a contractive and an expansive power. Contraction is the tendency of the periphery to the centre—a tendency to form masses, shown by the —pole. Expansion is the tendency from the centre to the periphery, as shown by the + pole. Contraction conforms to gravity, expansion to the influence of light—standing in opposition one to another and forming polarity. Just so in large doses of a crude remedy, we find the matter in a contracted state—in its physical gravity; but by trituration, whereby light and electricity is evolved, it gets infinitesimally expanded; therefore:

Large crude doses = matter, gravity, magnetism—principle of contraction, —pole.

Smallest atomistic doses = electricity, light—principle of expansion, + pole.

But this polarity between large and small doses we find only in remedies powerfully acting on the organism, but not in indifferent substances, incapable of producing a pathological state in a healthy organism.

c. STERN.—Homœopathic remedies act not directly on the diseased point, the seat of the disease, as a curative balsam or chemical reagent; but they unfold their injurious powers on the yet healthy parts of the diseased organ or organic system, producing a similar disease, which, as a counter-irritant, derivates and dissolves the natural original disease, and thus cures.

d. MOSTHAFF.—1. Disease is a one-sided development of the organic activity. We see the organism changing its proportions to the extraneous things according to the different steps in its development—according to age, temperament, climate, and disease. Analogous is the different action of medicinal potencies on different species of animals. We conclude further: in the action of remedies on the organ there is an exchanging action, to be viewed as the product of two factors, namely the action of the remedy, and the counter- or re-action of the organism. But if one of the factors is changed, and in an entirely different state of re-actionary power—if one organ is diseased—the product cannot be the same which would have followed upon the action on the healthy organ, or rather an opposite effect will be shown. 2. Every powerful remedy is capable of producing a diseased state on a healthy person. This diseased state we call a difference; if then such a difference exists in the organism, *id est*, the disease is present; the organism either will attract the opposite part in the remedy, or *vice versa*, the remedy will produce an opposite state in the organism, just as electricity shows a directly inverted proposition to + or — electricity, according as the one or the other is produced in it, and health be established again.

Thus the homœopathic principle remains the eternal law for the practice, founded on nature and approved by science; and we may be sure, "that diseases will vanish before those remedies whose essential effects on the healthy body correspond most exactly to the essential symptoms of the disease."

II. SCIENTIFIC CHARACTER OF HOMŒOPATHY.

Its scientific character is proved—a. By being based on a principle: "*Similia Similibus Curantur.*" b. Homœopathy has only the tendency to benefit mankind, but never to do injury; in all other curative methods we find more or less medicinal diseases. c. Homœopathy has a high degree of certainty in its applications. d. The simplicity of giving only single remedies, according to our immutable principle, expands our knowledge and produces science.

Hahnemann taught us, that we must endeavor to remove all morbific symptoms in order to insure success; for where there are no symptoms left there can be no disease. Yet our therapeia is not merely a mechanical covering of symptoms, but an empiric rational one. To get a true picture of the diseased state of the organism we have to find out the totality of all symptoms, embracing the individuality of the patient according to constitution, sex, age, temperament, former way of living, past diseases, hereditary troubles, and the duration and power of the present disease with all its causes. Physical diagnosis, auscultation and percussion, chemistry and physiology belong to no school, but are the mutual inheritance of us all.

III. EFFECTUAL POWER OF SMALL DOSES.

It is a general law of nature, that the more active powers are neither so much nor so intimately connected with the larger masses than with the smallest particles, and the "molecules organiques" form the chief matter of the whole animal and vegetable world. An every-day fact, the water, shows sufficiently the augmentation of power with the continuing division and liberation of the smallest particles; chilled to a firm body, as ice, it shows only its effect by its weight; in its fluid state it awakens and nourishes every germ of life; but rarified to steam, the expansive power of a few drops masters the most powerful resistance.

A. *Proofs from Physiology.*—Panizza's experiments have proved, that absorption is so much easier performed the more divided and assimilable the matter is, and therefore small, divided, and soluble medicinal doses have more effect than large doses, which pass off in insoluble matter with the excrements. Chrestien proved before Hahnemann, that gold dissolved in muriatic-acid is less effectual than in its simple metallic state, but pulverized to the very finest dust. Mayerhofer proved microscopically, that the cubic space of a metallic globule is sixty-four times smaller than a blood-globule. Those infinitesimal medical particles penetrate the very innermost tissues, and exercise their power on the exact focus of the disease. Spallanzani and Arnold have proved, that the millionth part (third dilution) of the semen of the frog is yet fructuating; and if such a small quantity can give life, why should it not also be able to preserve it? The physiology of plants proves the same. Another argument we find in the sense of smell, as we find it not only in dogs, but also in men; as in the Chinese, smelling out, as it were, the least impurity in gold, if mixed with copper; or in our own Indians, whose perfection of senses is wonderful. The smell of the least particle of musk is just as strong after years as in the beginning; the visual organ adds weight to our arguments. Mosthaff's trials with Hyosciamus showed, that even in the sixth dilution it produced a strong dilatation of the cornea, lasting twenty-seven hours, and the most remarkable thing was, that it left a dark spot on the eye, lasting fifteen months, although he used wine and coffee during the whole time of the proving. To the remark, that other nerves are not so sensitive to impressions as the nerves of the senses, we reply: that our remedies, as we use them, are always in contact with sensitive nerves; for Wardrop has proved by the structure of the tongue the benefit of letting the remedies be absorbed by the tongue, instead of introducing them into the stomach; and as our remedial doses effect especially the absorbing vessels of the tongue and its very sensitive nerves, we can easily understand how small doses produce strong remedial effects.

Miasmatic and contagious poisons are also argumentative for the power of small doses; for neither microscopic investigations nor chemical reagentia have ever thrown the least light upon them, and yet what severe revolutions they produce in the organism! and only remedial powers should be balanced by weight and measure!! We have facts enough, proving, that disease as well as the remedy may be produced through imponderabilia, electricity, and galvanism. Finally, under the picture of idiosyncrasies we see a certain sensibility against certain external irritations, where the organism is in that peculiar state, that even the most insignificant stimuli produce overwhelmingly strong re-actions.

B. *Arguments from Chemistry.*—We do not believe, that the medicinal power is progressively augmented and *potentised* by trituration or dilutions; but we do believe, that through the extreme division of a medicine, its power of absorption is raised, the points of contact multiplied, the quicker effect on the nervous tissues hastened, and thus a curative effect brought about. Catalysis has long ago proved, that even small particles produce strong effects, and a striking argument for the power of small doses is found in the specific curative powers of the mineral waters.

C. *Arguments from Physics.*—The ideas of large and small, near and far are relative. Doppler thinks, that we ought not to judge the power of remedies according to the bulk of the mass, or according to its weight, but according to the comparative quantity of its effectual surface. Under physical surface of a body we understand the totality of all atoms, surrounded at least in one direction by atoms of a different sort. Therefore bodies broken up and rendered thus smaller, gain thereby considerably on surface; for atoms, belonging before to the interior part of the body, come now in contact with the surrounding medium, and get part of the surface; the total surface gains in the same proportions as the diameters of the single parts are reduced. But in order that this surface may exhibit itself truly as a *physical* or active one, the single particles must be prohibited from touching one another, which can only be done by mixing it thoroughly, and triturating it from the very beginning with a foreign body as a medium; this medium or vehicle must be in sufficient quantity. This, only more so, is also the case with the dilutions. Furthermore, bodies, by changing contact, acquire not only an electric state, but this happens regularly at every diminution of a body; and therefore the quantity of free electricity increases with a largely increased surface, even *pari passu*, whereby it often happens, that under especially favorable circumstances the electricity, accumulating on the surface, advances to phenomena of light. We may also take it for certain, that the electricity, appearing in large quantity during those triturations, possesses only a very trifling degree of tension,—that only the vacuum and the *nervous substance*—id est, *the best conductors*—can act derivatively on it, but not metals and other bodies. If the part is small the electric power carries it along, if the conductor—for example, the nerve—is present. We see now, that during good health we enjoy a perfect untrammeled nervous activity, whereas during sickness the power of conducting is altered. But we also see, that running water leaves the sand there where the stream meets an objection, just so the electric stream will only set down the medicinal particles on the obstructed and sick places.

D. *Arguments from the Power of Affinity of Bodies.*—It is a law of nature, or at least a constant axiom of experience, that similar motions produce one another, and the greater success of any action is less limited in the body exposed to it by any inherent strength, than by the receptability of the body to it. Thus the specific remedy acts mightily and without fail on the similarly disposed nerve. Haller calls this specific quality of certain organs *specific irritability.* But only small doses have to be used, in order that the diseased and easily affected body shall not succumb, whereas large doses of remedies will show little or no effect, where it does not stand in near relation to the given case of disease. Nature everywhere achieves great results with only a small expense of power, and keeps before our eyes the dignity of the law of polar relations. It is not to be denied, that strong doses will produce strong effects, but they are not *beneficial* effects; only high potencies of homœopathic remedies are able through their delicate doses to support the curative efforts of nature, and to dissolve the existing dissonances.

E. *Arguments from Pathology and Therapeutics.*—If it is possible, that injurious matters which we cannot take hold of by our senses, and therefore certainly quantitatively infinitessimally small, are able to shake the organism to its very foundation, and even to destroy it, why should not equally small material influences be able to affect a sick person, and thus by reversing its operations, bring it back to its normal state. Every organism—yea, every organ—has a special receptivity for particular influences and stimuli, as the eye for light, the ear for sound, the nose for smell. Many an animal lives from plants whose smallest particles are certain death to another. Every organ in a diseased state is far more sensitive to its specific stimulus than when well; small doses are therefore not the essence, but the consequence of homœopathy, as of that method having for its basis the specific relations of the remedy to the sick object; if the remedies then cover exactly the diseased points, a very small dose only is needed to get a remedial action.' But in allopathy, where a counter-action, a massive expulsion, an artificial derivation, or a chemical metamorphosis is wanted, we certainly need a proportionately larger quantity of medicine for the cure. Microscopical experiments prove, that medicinal substances are found in the triturations and dilutions. Segin even detected with a solar microscope in the 200th dilution signs of copper, and Mayerhofer experimented at first with sugar of milk, alcohol, distilled water, and then, after thus putting aside all possibility of mistake, in the preparations made by himself (2.98), he detected Platina in the tenth dilution, Aur.-fol. in the fifth, Aur.-præcip. in the tenth and eleventh dilution, and so on; he proves also, that the metallic particles grow smaller and smaller during those divisions, and therefore more assimilable to the organism, and hence trituration is only a liberation and unlocking of medicinal powers, whereby also electricity and magnetism is set free. Mayerhofer has shown, that matter is still there where our opponents thought it gone long ago, and therefore considered the attenuations powerless. As the blood finishes its circulation in twenty to thirty seconds, therefore all those so finely divided medicinal molecules come in contact during that short time with all ends of nerves, explaining thereby their quick and powerful effect; for physiological observations show, that medicinal effects spring more from the ends than from the centres of the nerves.

V. THEORY OF POTENCES, OF DILUTION, OF DYNAMIZATION.

The effect of dividing by dilution or trituration those bodies which show their full efficacy in a crude state, is no other than to mitigate that power. By this diminution we render them more friendly to the organism, whereas, as poisons, they are inimical. An augmentation of that power in such cases could not be thought of. But in bodies, which in the crude state, have no sensible influence on the organism, as Lyc., Calc., Carb.-veg., we propose, by dividing it, to open the crude mass, in order to afford to the organism a quantity of points of attraction. By trituration medicinal power is only liberated, but there is nothing created that was not before in the substance, the substance is essentially the same in the molecule as in the crude mass, the power is only developed by suitable manipulations, but not multiplied, and this is in fact no injury to the effects of homœopathic remedies.

VI. DOSOLOGY.

Dosology is the doctrine that teaches us the quantity of a remedy to be applied to a diseased organ. Mayer has written on this chapter twenty-five theses, some of which we will lay before our readers; 1–4. The smallness of the dose is an essential part in homœopathic therapy, for the principal requisite of a rational therapy remains the "cito, tuto et jucunde sanau, and experience teaches, that the strictly homœopathic remedy selected according to our law "*Similia Similibus Curantur*" will produce aggravations, when given in large doses. Dr. Verweg, of the Hague, opposes large doses: 1. as unnecessary, as the power of a remedy lies only in its quality, but not in its quantity and: 2. because large doses obstruct the digestion and blood crasis, offices which ought to remain untouched in a sick state, in order to carry it to a happy crisis. 3. Large doses produce so many secondary effects, that the chief effect will appear modified or more or less obscured. 4. Large doses increase the effect to such a degree, that exhaustion ensues after the too powerful irritation, stopping either the beginning amelioration or under less favorable circumstances causing death. 5. Large doses produce as many symptoms as the disease itself, yea, the newly-appearing symptoms of the remedy are often more severe than the symptoms of the disease which we want to cure. 6. Large doses leave after-effects of long duration. 7. Large doses, according to the laws of polarity, have often a contrary effect.

Fifth Thesis.—The lower potencies agree with the acute, the higher ones with the chronic diseases, for the effect of the lower ones is quicker, but coarser and more evanescent, whereas the higher and highest potencies have a slower effect, but more penetrating and longer enduring.

Eighth Thesis.—The expression of acute and chronic is a relative one. Some diseases have an acute character through their whole course, as cholera, the real croup, and are treated more satisfactorily with lower dilutions than with higher ones, but most diseases have only an acute stage, and often that has passed off, and the case may be considered chronic for our dosology. The precursory fever of a pneumonia or pleurisy needs low dilutions, but the removal of the exudation will be quicker brought about by higher potencies. Exanthematous diseases and also typhus need high potencies as soon as they localize themselves, but when new complications arise we have to return to lower potencies.

9–14th.—There are chronic diseases which have an acute appearance, as those which appear in paroxysms, as whooping-cough, migraine, intermittents. Whereas the paroxysm itself takes on an acute or even a most acute form, the real disease is a chronic one, and the higher dilutions will certainly answer better in all diseases recurring with typical periodicity. From the same reasons we consider inflammations of mucous membranes, *catarrh*, always chronic diseases, with the exception of this acute stage, showing itself by pain and fever, and therefore better met by high potencies. Heat and fluor albus are good examples. Nervous and mental diseases need higher potencies *per se*, even if we do not look at their chronic nature. All blood crases belong to the same class. The iron, contained in mineral springs, cures anæmia and chlorosis, because it is there in very small quantities. All new formations of not pernicious nature, like warts, are also the quickest cured by high potencies. Trinks says: that the strength or the energy of remedies in the dilutions, prepared according to Hahnemann's rules, decreases very slowly, so that there is very litttle difference between the effects of the 6th or 9th, between the 15th, 18th or 24th dilutions, and that high dilutions, from 20–30, show not only their effect in a disease of the dynamic sphere, but also just as well in those of the material sphere of the organism. The following ideas might aid us to decide when to use high,and when low dilutions:

It is a rule, that a high receptivity requires only small doses, a lower one larger doses. Age is here of great influence, therefore the younger the patient, the smaller the dose, and with infants, higher dilutions from the 10th to the 30th are advisable. Also the specific relations of medical agents to organs, just in their evolution, has to be considered. Old age again, a second infancy, requires only the higher and highest dilutions. Climate and our mode of life exercise great influence on the dose. In hot climates smaller doses will suffice, whereas in colder climates larger doses are necessary. The mode of life also modifies the receptivity for medicines. Vegetarians show a greater receptivity than those using mixed food, the laboring classes need stronger doses, as also those who clean tobacco or work in tobacco, vinegar-factories, distilleries or groceries. The use of wines, spirits and coffee increases the receptivity; strong spices, especially cayenne-pepper and strong beer with its narcotic appendages dull the same. Moderate use of tea does not reduce the sensibility. The abuse of Lead, Mercury, Iodine, China and Valeriana, leaving, as it were, an intoxication in the blood, render stronger doses necessary. But also the occupation of the mind has great influence. Whatever depresses the mind, depresses also the receptivity. Poets, artists, authors of belletristic works, are very sensitive to high potencies.

Just so with sex and temperament. The female sex approaches the infantile state and we find, therefore, a strong receptivity, still increased during pregnancy, confinement and the climacteric years. The melancholic temperament with its intense feelings, and the sanguine and choleric one, with the preponderance of the animal nervous system, shows greater sensibility and corresponds therefore to high potencies; the phlegmatic temperament on the contrary to low doses. Torpid constitutions show very little receptivity towards homœopathic remedies. This torpor is especially found in all functions of the ganglionic; the delicate nervous constitution responds to high dilutions. Kampfer remarks, that the highest degree of receptivity is found in individuals with a delicate white skin, reddish brunette hair, melancholic temperament, and in ladies with a tendency to obesity. Such persons show also a great receptivity to the influence of zoomagnetism in nervous pains or spasmodic affections. But there is also a condition, which Hufeland calls torpid strength. Its character is strong muscular power and very strong and energetic reactionary influence, but which, to be roused, needs strong stimulus on account of the small receptivity. Such people bear large quantities of liquor, without getting drunk, and when sick, they require large doses. Sensible constitutions, easily and strongly afflicted by external influences, require high potencies.

Idiosyncrasy, or the particular receptivity of the organism for certain external influences, must be brought into account, and as low potencies will certainly produce in those cases their own especial symptoms, high dilutions have to be given. Certain diseases reduce the receptivity for certain remedies and then require larger doses, as their nervous system is not active enough to receive quickly injurious influences. So in tetanic patients large doses of Quinine are well borne.

The seat of the disease and the strength of the medicine are influential for the dose. The more sensitive the affected organ is, the smaller may the dose be given and *vice versa*, but always with that condition, that the sensibility is not prostrated. Erysipelas on the face needs a higher dose than erysipelas on the feet; Rau uses in carditis Ars. in the thirtieth dilution, whereas stronger doses of the same remedy are easily borne in œdema, pulmonary affections and hydrothorax. In diseases of the vegetative sphere stronger doses are necessary, except their character be erethic or inflammatory. In isolated diseases, where the whole organism is little or not at all affected, as in ulcers, tinea, otorrhœa, glandular indurations and so on, more massive doses require to be given.

The power of the medicine is another consideration, and Trinks divides remedies into: *a.* Those working on the organism with great energy and intensity, but whose effect lasts only a little while,—"energetic, but fleeting," even when given in large doses, as Acon., Cham., Camph., Moschus, Ign., Ipec., Hyosc., Coffea, Stram., Samb., Opium. *b.* Those producing effects less strong, but more intense, deeply penetrating the organism and lasting a great while. To this class belong all mineral remedies, as Ars., Cupr., Merc., Sulph., Graph., Aur., Arg., the mineral acids and a great many vegetable remedies. Energetic and intensively acting remedies require to be given in high potencies.

Remedies of medium potencies are Cannab, China, Euphrasia, Coffea, Asa., Agnus, Caps., Cham., Croc., Dulc., Hep., Ipec., Ac.-phos., Nux-mos., Rheum, Sabina, Senega., Tab., Thuya, Opium.

The character of the disease has also an influence on the dose. Erethysmus requires high potencies, torpor low dilutions; nervous rheumatism requires high potencies, the inflammatory one medium or low potencies. Inflammatory diseases with increased arteriality succumb better to light potencies, nervous inflammation to low potencies. Trinks gives the following rule, to use in acute diseases the medium and low dilutions (3–6th), and even the very lowest dilutions, where the organic power of life is quickly consumed by the disease, till a decisive amelioration puts aside the threatened danger, and then to return to higher potencies. But in chronic diseases, and even in chronic inflammation we will find a quicker response from the smallest and finest doses. Diseases of the mucous membranes of the chylopoetic, coropoetic and sexual organs, and of the bronchia require medium or very low dilutions, when this atony and laxity is of long standing, or has even increased to torpidity. Mental disorders, spasms and neuralgias respond to high potencies; lower doses will only answer where an exquisite torpor of organic life is connected with it. Syphilis corresponds to low dilutions; chronic gout again only to high potencies, for even the very finest doses produce here sometimes aggravations. In Chlorosis iron only needs to be given in stronger doses, all other remedies only higher. Erethic scrofulosis and high potencies, torpid scrofulosis and low potencies. In medicinal diseases we use either the specific antidotes in larger doses, or the very same remedies in the finest doses, forming according to the law of polarity a perfect antidote against large doses. Diseases of organs, nearly destitute of nerves, as the bones and glands, if chronic, succumb quicker to high than to low potencies. If no amelioration ensues, then let us see the first, if we have chosen the simillimum, before we give a stronger dose.

The affinity of remedies to particular organs, and the place of their application often point out the dose. The greater the affinity the stronger the power and the finer the dose. External applications are always made with low dilutions or tinctures, even when we use at the same time high potencies of the same remedy for internal use, finally even the time of day has to be considered, as Belladonna ought rather to be used in higher potencies mornings than evenings; emetics operate quicker in the morning, &c.

Finally, in acute diseases, treated allopathically, we cannot wait for the passing off of the medicinal effects, but use our similimum in strong and oft-repeated doses. Is the danger passed and amelioration begun, we apply smaller and more rare doses. In chronic cases we regulate the mode of life, wait sometimes, and then apply our remedies.

REPETITION OF REMEDIES. DURATION OF EFFECT.

According to Hahnemann there are three moments to be considered, which influence the quicker or slower effect of remedies, or their duration: 1. The specific nature of the remedy; 2. The largeness of the dose; and 3. The nature of the disease.

No. 1.—We have, *a.* Remedies whose duration of effect is not lasting. *b.* Remedies which have a medium duration; their number is large. *c.* Remedies whose effects are slow, but lasting for some time: from 15–40 days.

No. 2.—Strong doses act not only more energetically on the healthy and diseased organism, but their action lasts longer than those of weaker and smaller doses.

No. 3.—In acute diseases all remedies without exception, even those wanting usually longer time for the development of their action, act not only more energetically, but their action is more evanescent,—their energy is consumed in a short time by the intensity or extensity of the disease. Such facts prove therefore, not only the necessity of stronger doses, but also of their quicker repetition. In chronic diseases, on the contrary, the process of disease appears more insidious, making often great remissions and intermissions, and therefore all remedies act more slowly, with less energy; but their effects last much longer. The vital power and the sensibility of the organism have also to be considered. In robust, irritable persons, rich in vital power, the curative effect appears and vanishes quickly, the time of action is short. The contrary is the case in torpid and phlegmatic constitutions; remedies here act more slowly, but with more lasting effect. The primary effect of remedies in childhood is evanescent on account of the rapid process of life, and passes quickly to its curative effect; but in old age we perceive a longer primary action, as the organism has very little re-action to oppose to the remedy, and a relatively short secondary action.

Koch gives us the following rules on this subject: 1. The more perfectly similar the curative potency the less necessary is a repetition of it; repetitions in very small quantities are not only not injurious, but necessary for the safety of the cure. 2. The less perfect the similarity of the curative potency, the more necessary is the repetition. 3. The more intensive the diseased process, the oftener we repeat the medicine. 4. The more acute the disease, the oftener the repetition. 5. The more completely similar the curative potency, the more injurious the *repetition of large doses.*

Altschul.—The rule is not to repeat, as long as we see an amelioration. Repetition is only necessary, 1. When the remedy has reduced the strength of the disease, without mending it in any essential points, or when the beginning amelioration has stopped again. 2. When the receptivity for the dose administered has died out, and the organism does not re-act more upon it, the remedy has to be repeated in an increased dose. 3. In acute diseases, as inflammations, where we find a quickening of the abnormal process of life, passing off rapidly, repetitions are necessary;—in acute diseases a too early repetition even is not injurious; on the contrary, by long waiting time is lost, which means a great deal, and secondary products and exudations are only kept off by quickly-repeated doses. 4. Remedies in quick succession are demanded in dynamic and putrid fevers, where collapse of the vital power is threatening. 5. The smaller the dose, the quicker is its effect in passing away; we repeat therefore frequently in acute cases, where small doses are indicated. 6. Repetitions are judicious where the symptoms appear in paroxysms, as in spasms, and the exacerbation gives us the measure for the repetition; in diarrhœa, vomiting, colic we repeat as often as the attack recurs.

But repetitions are unnecessary, 1. When remedies act powerfully, producing an essential change in the disease, especially if the medicine is capable of producing injurious secondary actions. 2. In diseases with transition-stages; experience teaches, that as soon as a disease passes from one stage to another, the remedies should also be changed, to suit the present state of the disease.

INTERMEDIATE REMEDIES.

Hahnemann (Chronic Diseases, III., 119, 219).—Rau offers this physiological reason for their use. By repeating one remedy often, even in increasing doses, the organism gets used to it, and does not re-act any more, and it is then judicious to substitute momentarily another strictly indicated remedy, and then to return again to our first choice. All intermediate remedies should be given in smaller and finer doses—even though not always by olfaction—than the anti-dyscratic remedy given for the chronic malady, in order to injure its effect as little as possible. Griesselich discriminates with great acumen between 1. "*Mittelwechsel*," *change*,—when we alter the remedy after it has lost its effect, or showed no effect whatever, or not such a one as we expected from its use; 2. "*Mittelabwechslung*," *alternation:* when two remedies are alternated at stated intervals, as one hour Acon., the next Bry. 3. "*Mittelfolge*," *successory remedies:* certain remedies are related in their effects, and may therefore succeed one another in corresponding diseases, as Sulphur after Calcarea, Belladonna after Aconitum.

ANTIDOTES.

The antidotal action of homœopathic remedies, by which the physiological effects of one remedy are either totally or partially annulled by another remedy, rests entirely on the homœopathic principle. The effects of every medicine on the animal organism are therefore annihilated by another medicine, whose positive effects are extremely similar to the first one in its symptoms—in its local and general tendencies and character; or only partially annulled, so far as it is similar to the first one in its symptoms and effects. The remedies perfectly similar in their positive effects annul one another in their effects, whereas those whose positive effects cover only solitary organs or tendencies, annihilate only those effects to which they are similar.

The homœopathic physician uses only antidotes: 1. In aggravations, secondary or medicinal actions, produced by a remedy not chosen carefully enough. (Hahnemann's Organon, IV., 19.) 2. To alleviate and relieve symptoms which appear on the prover during the time of proving a medicine. 3. For the cure of medicinal dyscrasias. 4. Related or successory remedies act as antidotes one against the other; for Buchner has shown, that *a*, the greatest possible similarity of the positive effects of the related remedies in the healthy animal organism makes them liable to come in antidotary relation to each other; *b*. Related remedies, given one after another, act according to experience, more powerfully than non-related ones, and the cure of a medicinal disease is the more tedious, the longer remedies were given in large doses, which stand in antidotary relations. *c*. A favorable opportunity for the application of allied remedies is offered by the "one-sided diseases" where a cure is rendered difficult by the poverty of characteristic symptoms. Here we choose in the beginning that remedy covering for the time the few symptoms now present; as soon as new symptoms appear, the first remedy has done its part by calling out those symptoms, and rendering thus more perfect the picture of the disease, and we have to prescribe that remedy, being the similimum to the whole disease. Every remedy has several antidotes, and therefore to individualize particularly every case is of the utmost importance.

Symptoms created by too large a dose of a remedy often find their antidote in a small dose of the same remedy, which is explained by the polar relationship of the medicinal doses. We have already found, that there is the same polar opposition between large and small doses of remedies as in the magnet between the north and south pole. We know that the north pole annuls the too strong impressions of the south pole, and *vice versa;* and according to the same physical law the small dose annuls the too powerful action of the large dose of the same remedy.

ADJUVANTIA IN HOMŒOPATHY.

They are only permissible: 1. When the special nature of the disease calls for other than medical aid, as surgical cases, the removal of pathological products, toxical cases. 2. When the patient himself opposes every rational treatment. 3. Where the physician has not on hand the requisite homœopathic remedies.

Even the old school begins to raise objections against blood-letting, and Hammernick has proved, that leeches or bloody cupping are not the remedies to reduce pain. Purging remedies can only be applied with safety in cases of poisoning; but to a cure they are not only unnecessary, but often even injurious. Hahnemann himself puts in a good word for derivating remedies, (Chr. Dis., I., 238). And we may use with a good conscience those adjuvantia which do not oppose injurious influences to the homœopathically applied remedy, as poultices for softening abscesses, cold and warm water applications according to indications. Electricity and its allied powers are recommended by Hahnemann in his "Chronic Diseases," I., 238; mild forms of it are the electric bath, the electric wind, and the friction through flannel. Zoomagnetism, like every other remedy, acts according to the law of polarity, and was already used by the father of homœopathy. Mineral springs are only simple natural bodies in dilution.

Resumé.

1. The homœopathic law is: "*Similia Similibus Curantur.*" 2. The similarity between remedy and disease must not only be an external one according to symptoms, but an innermost correspondence between those two factors. 3. The essence of homœopathy consists not in small doses, but in the law of similarity. 4. The repetition of remedies finds its condition in the duration of the effect of the dose, in the nature and strength of the disease, and in the success of the remedy. 5. We change the remedy, if not successful with the remedy, or when the disease changes its aspect. 6. The form of the remedy must be such a one as to preserve its genuineness, strength, and simplicity. 7. External applications of homœopathic remedies are permissible. 8. Disease and remedy give us the dietetic rules in every case; or with the Brazilian homœopathic academy.

"*Similia Similibus Curantur. Experimenta in homine saro. Doses mininsæ. Unitas remidii.*"

General Record of Medical Science.

Annotanda of Some Endemic and Epidemic Diseases of the Western States. Editorial.

CEREBRO-SPINAL MENINGITIS—SPOTTED FEVER.

An epidemic known by the above names is said to be prevailing at this time in some portions of the Western states, and is regarded by Professor Allen, of Chicago, as the same disease that was so extensively fatal in the years 1812–14, and again in Virginia in 1822. In more recent times it appeared in Michigan during the winter of 1848–1849, and caused a large number of deaths in Kalamazoo, Lansing, Grand Rapids, Coldwater, and other places in that state. It was generally regarded as a typhoid congestive fever, and was treated with exciting stimulants on the surface, and Muriated Tincture of Iron and Cantharides Tincture internally, aided by concentrated food of a stimulating nutritious character; essence of beef and egg-nogg were favorite articles.

The present epidemic presents the same general features, and first appeared in an alarming form at Plymouth, Indiana, though single cases have appeared in different parts of the country. It has hitherto generally baffled the efforts of physicians, and proved fatal in a few hours. It has usually commenced with a chill, which had not been anticipated by any premonitory symptoms. The patient thinks he has the ague, and expects the cold stage to be followed by the usual degree of fever. Instead, however, of the common re-action and development of heat on the surface, the chilly condition and the shrunken appearance of the skin and features continue for a long time; and the patient gradually sinks into a state of stupor, from which he rarely revives. In the course of a few hours the muscles are observed to be rigid; the pupils of the eyes become insensible either to light or touch; the surface of the body becomes extremely sensitive to the touch; the head is drawn back, the jaws fixed; the breath is drawn forcibly, with a hissing sound, as if by great effort through the closed teeth; the patient is blind and deaf. In children the stupor is liable to be broken by frequent convulsions. As the disease progresses the stupor increases; large dark spots rise upon the skin, some of them proceeding to form blisters. In some cases the patient lingers for some days, during which all the nerves of sensation, and those of motion belonging to the lower extremities, are paralysed, and he is both deaf and blind. In some cases there is a partial revival from the stupor, and apparent convalescence begins; but in only an hour or two a fearful delirium follows; the stupor becomes gradually more profound than ever, and death speedily ensues. In the few cases in which recovery takes place, it is only after a protracted course of typhoid fever; and paralysis, loss of sight, or of hearing, is generally permanent.

We find the following case reported in a paper from La Grange Co., Ind.: G. W. M.—was suddenly attacked by a chill in the fore-part of the day, and having the usual symptoms of a common form of ague, excited little attention; as several hours passed without re-action, the family became alarmed, and a physician was called, who arrived about eleven, P. M. The boy was then lying in a state of partial stupor, from which he could be easily aroused to answer questions; there was hurried breathing; flushed face; pulse imperceptible; hands quite cold; head slightly thrown back; muscles of the neck somewhat rigid; pupils dilated; limbs and body covered with large spots, some of which were red, and others purple or black; a few of the black spots elevated and resembling blisters. No re-action could be excited by the strong stimulants used, and the boy died in a short time; the face after death turning quite black.

In the same manner it is common for death to result upon the full development of the cold stage,—no re-action following except when brought about by stimulants. The characteristic symptom is the appearance of spots on the skin, which give the popular name of "spotted fever." If the patient lives through the first stage of prostration, fever succeeds, which is of a strongly marked typhoid character; there is then hurried breathing; pain in the back and head; flushed face of a dark red or purplish hue; tongue dry and brown, or black; stupor and delirium. In nearly all cases there is evident disease of the spine.

Causes.—Cerebro-spinal meningitis is not a contagious disease, but depends remotely on a peculiar epidemic influence not yet understood. In the localities in which it has prevailed it evidently has manifested its power in places where the common autumnal intermittents and remittents have already debilitated the constitution in most of the inhabitants; and then it selects from them such as are in a peculiar state of predisposition to be attacked by any violent disease that may come along. Such are the persons who in other seasons, in the same localities, are liable at almost any time to be suddenly overwhelmed by a *congestive chill*, from which there may be no recovery or return of consciousness.

CONGESTIVE FEVER—MALIGNANT INTERMITTENT.

This is not a new disease, specifically distinct from ordinary intermittent, but a severe form of the same disease, occurring in a patient whose general health is already greatly prostrated and deranged. It is little more than the cold stage of an ordinary ague, deepened and prolonged in consequence of constitutional exhaustion of the vital powers, from the effects of previous disease. Dr. Drake says: "The innervation is scathed; the circulation is enfeebled; the blood, largely retained from the more external parts, circulates with difficulty through the internal or visceral system, which is rendered plethoric, and the great organs—as the stomach, spleen, liver, lungs, heart, and brain—are respectively liable to pernicious engorgements or obstructions, greatly increasing the danger. A failure in the function of respiration, in the co-operative action of the brain, and in the projectile power of the heart, combine to diminish the aëration of the blood, which, deteriorated in its constitution, contributes still further to sink the powers of life. This condition of the respiratory function diminishes the heat of the body, which is moreover reduced by the failure of the calorific function of the skin, from the combined lesions of the nervous and circulatory systems, while the transudation, which the relaxed integument permits, of the serous portion of the blood, and the copious exhalation which takes place accelerates the cooling. The patient dies under the combined influence of depression of the vital forces, and that consequential accident or engorgement of some organ, which has procured for this fever the epithet congestive. Or, should a partial re-action occur—should he survive two or three paroxysms to expire in a fourth or fifth, as occasionally happens—a low inflammation may be superadded to passive hyperæmia, in the organs most capable of re-action, while others remain torpid and perhaps engorged." (Diseases of the Mississippi Valley.)

This peculiar and much dreaded form of fever was formerly confined to quite a limited sphere in its epidemic and annual visits. In 1835 it first became common in the valley of the Alabama River. Previous to 1840 it was scarcely ever seen north of the latitude of 35 degrees, and extending to the Gulf on the south. Of later years it has only appeared sporadically in that region; but it has diffused itself over the whole West, from the great lakes of the North to the southern line of Tennessee; and it only visits occasionally its ancient territories.

That form of fever so prevalent throughout the West, and known as the "bilious remittent fever," is now scarcely ever seen, and is superceded by the more fatal typhoid and dysenteric fevers. These two diseases, it is believed, cause three-fifths of all the deaths in Tennessee and Alabama. I give some notes of a case seen in northern Indiana, June, 1842: Mr. W., aged fifty-five, of good constitution, but considerably injured by malarious fever, considered himself as only affected with a slight cold for a day or two. On the morning of June 13th, at seven o'clock, he took a severe chill, which lasted an hour. As it subsided, he complained of pain in the head, which increased in intensity and alarmed the family. At nine, A. M., I found him in bed, taking little notice of anything said to him, though complaining of pain in the head; respiration little changed; head warmer than the skin elsewhere. But the whole appearance of the surface was remarkably shrunken; there was really a collapsed condition, and an unusual expression of the eye. At first there was no visible injection of the vessels of the conjunctiva, but there was a wild staring expression; and the evidences of rapid congestion of the brain constantly increased. I saw that, whatever might be given, no real effect could be produced by it, though I pursued faithfully the course of treatment. I then thought to offer the only possible chance of recovery. No perceptible effect resulted from anything that was done. The "suffocated excitement" continued to increase; the heart was laboring violently, though the veins were still collapsed, and the congestion of the brain was advancing at a rapid rate; the breathing became more and more laborious,—not from congestion of the lungs, but from the gradual withdrawal of the nervous energy from every part of the body at the same time, the extreme engorgement of the brain having cut off entirely the source of vital power. Indeed from first to last the march of the disease was rapid, constant, and uniform; and the perpetually increasing injection of the eyes marked the progress of disease towards a fatal termination. Thus at nine, A. M., the eye looked only dull and glassy; at ten it was perceptibly red; at twelve the whole surface of the sclerotica was covered with dark-red veins; at two, P. M., the same surface was uniformly dark red; at four all the vessels of the surface were invisible, being blended into a dark-red mass having no resemblance to the human eye. The pulse gave evidence of congestion—not of inflammation; at nine, A. M., it was 80 per minute, and nearly as full as before the access of the chill; at four, P. M., it was 84. The skin at that time was cold and dry; during the next three hours it gradually relaxed into the cold damp condition of approaching death. The pulse became more frequent, irregular, feeble, fluttering. Just in proportion to the degree of congestion of the brain was the diminution of nervous energy; and in the same degree did the lungs cease to perform the due decarbonization of blood, leading to increase of the stupor; increasing darkness of the blood and of the skin. The patient continued sinking, and died at ten, P. M.

In all cases in which re-action can be brought about, either by remedial measures or by the natural powers, recovery may be anticipated. In a malarious region (where such cases generally occur) the chill may be expected to recur on the following day, if not prevented by efficient treatment. A second or third paroxysm is generally fatal. The patient dies, not because the brain is engorged with blood—for that could in some way be dispersed,—but because the brain, overwhelmed by the depressing power of the cause of the disease, is rendered incapable of performing the functions essential to the continuance of life.

In these cases there is a complete suppression of all the secretions; and the torpor of the liver especially, is so great, that no remedial measures have power to arouse it. In one case in the same neighborhood the liver, on post-mortem examination, was found congested, and both the gall-bladder and its ducts were entirely free from the presence of bile.

CONGESTIVE FEVER—CHOLERINE FORM.

In every form of a congestive fever "the innervation of the extreme vessels fails, and they cannot therefore perform their part effectively in the circulation. The blood enters them with difficulty in their enfeebled state, and is carried through them very slowly; hence the paleness, and the lividness of the surface, owing to the stagnation of the blood. From the same approach to nervous death in these vessels they allow the watery portion of the blood to ooze through them, almost as through dead membrane; hence the profuse sweats. The coldness obviously arises from the languid circulation and deficient change of blood. This condition of the capillaries may co-exist with considerable power in the heart, for the want of innervation is not necessarily equal in the whole circulation; but sometimes the deficiency is experienced first, and especially by the heart. In such cases syncope or a tendency to it is the prominent symptom." (Wood.)

On the same principles we can account for the oppression of the chest and want of breath, the deep sighing, &c., which accompany congestive attacks, in which the lungs are the central point of invasion. From the same deficiency of innervation the pulmonary capillaries cease to carry forward the blood with the usual rapidity, and the due aëration does not take place.

In the cholerine form of congestive fever there is deficient innervation of the stomach and intestines, producing the oppression of the stomach and free vomiting. The insupportable nausea and feeling of utter prostration has been compared to the "distressing sensations of a half paralyzed limb." "The bloody serum, or pure blood," says Dr. Wood, "discharged from the stomach and bowels, escapes through the coats of the vessels, exactly as blood percolates through the tissues after death, with this exception, that, as the vis a tergo still continues in some degree, it adds a vital expelling force to that of mere physical transudation. The alimentary canal may be said to sweat, like the external surface."

In these cases there is at first no inflammation of the gastro-intestinal mucous membrane; and in the protracted cases, though inflammation may be developed, it is not the source of the extreme symptoms. The softening of the tissue is ascribed in great degree to depressed vitality; and the stagnation of the blood produces discoloration in other tissues besides the skin, which in these cases becomes purple or livid.

The sensation of internal heat is not evidence of inflammation, or even congestion; for there is no real internal increase of temperature. We see patients complaining, that they are burning with heat within, as well as on the surface, when the tongue and skin are cold. These morbid sensations all arise from defect or derangement of innervation. The excessive *thirst* is to be explained in the same way. It is a constant symptom in "all conditions of disease in which the capillaries are emptied of their blood." "The congestion," says Dr. Wood, "necessarily follows the prostration of the active circulating forces. The pulmonary capillaries, heart, and the systemic capillaries are all enfeebled; the blood therefore collects in the veins and in the great internal organs, especially in those connected with the portal circulation; hence the congestion of the liver and spleen. When the circulatory movements return with their wonted activity, under restored innervation, the congestion is speedily dissipated." (*Practice of Medicine.*)

EPIDEMIC ERYSIPELAS—"BLACK-TONGUE."

This formidable disease invaded various parts of the United States and Canada about 1841. In 1842, 43, 44, and 45, it prevailed, at one time or another in almost every western state. It afterwards gradually diminished in virulence, losing its most striking characteristics. A single case will furnish a sufficient history of the epidemic as I often saw it during those years.

Mrs. M., aged twenty-five, was in good health on the evening of the 19th of March, 1844, felt some pain and soreness in one nostril, and through the head. During the night the pain increased, the nose swelled and the eyes could not be opened. In the morning erysipelatous inflammation was extending along the angle of the right jaw. At 9, P. M., the pulse was 100 in frequency; arterial action not strong; skin moist, but the inflamed surface fiery red; pain burning and confined to the skin; heat of surface generally not great. The swelling and redness, however, continued to extend, assuming a deep, dark red color. At 4, A. M., on the 21st, the pulse was 120, pain in the head, much worse among the parotids and salivary glands. During the morning the pulse was 130, in the afternoon 140. The face largely swollen over the right side and red on the left; pain in the head continued. The tongue from the beginning coated, now dry and red. Appearances continue the same through the evening, pulse constantly 135 to 140. Swelling extending upwards through the hair,—the swelling closes the right eye.

March 22, 8, A. M. The pain is now scarcely felt though the swelling of the face is such as would be made by adding two inches in thickness at the middle of the cheek and extending it down the neck and up to the top of the head; color like dark mahogany; pulse 136. The throat collects full of thick mucus which seems coming off. The patient thinks she is better. The pain in the back and legs is gone; intellect little disturbed; mammary secretion increasing, though the pulse is still too frequent to assure her safety.

At 6, P. M. the swelling was slightly diminished on the points first invaded, but is increasing on the top of the head and on the other side of the face; some discharge from the nostrils; pulse improving (120); superficial inflammation still slowly spreading but with less swelling. From this time the disease declined.

March 23d, pulse 120 in the evening; face and head still very large; skin dark; nose running bloody serum; slight pain in the head; skin thickened and red quite down to the neck, front and back. Itching of the skin and subsidence of the swelling and pain, give assurance of resolution in the parts first invaded.

March 24th, free from pain; pulse at 6, A. M., 110; swelling slowly subsiding, though the eruption spreads down the neck; both eyes still out of sight from the swelling of the lids.

March 25th. Slowly improving; pulse 104. The eruption has ceased to extend; appetite good; little perspiration; tongue moist and of natural appearance. Full recovery about the seventh day.

MALIGNANT DOUBLE TERTIAN OF THE MISSISSIPPI.

A severe paroxysm of chill at ten in the morning, and a light one at four, P. M., on the following day. Some patients die in the first cold stage, sinking immediately into fatal collapse; and few survive the third chill without very active treatment has preceded it. In many cases the stomach and bowels take on a choleric action. Some, after one or two convulsions, sink into profound coma; and in these cases, where there is a show of reaction, it is feeble, irregular, and terminates in icy coldness of the skin; the tongue moist, very pale and clean, or covered with a blue moist fur; little thirst.

This "sinking chill" has been mistaken for Armstrong's "congestive typhus," but they are antipodes in pathological condition. (Dr. Hogg, Fevers of Natchez, 1836, &c.)

IDIOPATHIC (MALARIOUS) TYPHOID FEVER OF THE SOUTH-WESTERN STATES.

Diagnosis. *Typhoid Fever.*	*Typhus.*
More insidious in its approach than typhus.	Often seen at New-Orleans in the winter months.
Color of the eruption is different.	Initiatory stage more brief. The patient yields immediately to prostration.
Diarrhœa and intestinal hæmorrhage are common attendants.	Never present in typhus.
Expression of countenance, that of intense anxiety.	Expression stolid, apathetic, — amounting almost to idiocy.
Complexion clear: flush of bright pink.	Complexion thick, and flush of a dark dusky red color.

TREATMENT.—In the initiatory stage Dr. Kellogg succeeded with a few doses of Bryonia in the morning, and Nux-vomica at night.

Second Stage.—Arsenicum and Rhus-tox. the chief remedies. These remedies, with Belladonna, Bryonia, and China, were always successful, with no other aids than occasional sponging with cold water.

BILIOUS TYPHOID FEVER.

Phosphoric-Acid.—Dr. Pearson, of Mount Pleasant, Iowa, gives a case:—A young man, aged nineteen, having been sick ten days, and abandoned by his physician as incurable.—*Symptoms:* Wild muttering delirium,—talking incoherently; inability to articulate distinctly, or to protrude his tongue, which was dry, covered with a dark fur, and tremulous; pulse weak—150 per minute; extremities cold; diarrhœic stools, which were passed involuntarily.

Phosphoric-acid, 12°, four drops in four ounces of water, two teaspoonfuls every two hours.

In twelve hours improving:—pulse 120; bowels better. There was then gradual improvement, so that in forty-eight hours consciousness was restored, and the diarrhœa had entirely ceased. Recovered in less than three weeks. Took only Phosphoric-acid, 12°, Bryonia, 12°, and Rhus-toxicodendron, 12°.

A similar case, which was regarded as an extreme one, was treated in the same manner:—A girl, aged thirteen years, thoroughly drugged by two physicians, under whose care a sister had died, presented all the symptoms of typhus in the worst form,—unconsciousness; involuntary diarrhœa; pulse weak, and 150 per minute. This case was cured by the above remedies at the thirtieth attenuation. An obstinate cough, threatening consumption, remaining after recovery from the fever, required Sulphur and Iodine, 200°, in alternation, every four hours. Four months after the last visit it was "impossible to recognize in the healthy looking girl the slightest resemblance to the emaciated patient previously treated." Dr. Pearson says: "*Phosphoric acid* is the only medicine I have ever found capable of making a speedy impression on the pulse in this disease; and whoever prescribes it below the twelfth dilution, and continues to repeat it often, *will run the risk of losing his patient.* These conclusions cannot well be called hasty, since years of experience have amply confirmed them. "Some diseases, both acute and chronic, appear to require for their successful treatment medicines as high at least as the twelfth attenuation; among the former are typhoid, typhus, and lung fevers."

Influence of the Mind on the Body in Disease.

The resources of medicine are not confined to the materia medica. In the present day they are all needed. "It is the duty," says Sir A. Cooper, "of the physician to support hope, preserve tranquillity, and to inspire cheerfulness, even when he is doubtful of the issue." A kind expression, an unobtrusive inquiry, a word in season betokening interest and regard, may serve to draw out the real cause of a pining malady which has long resisted the best efforts, and may thus lead to its cure. And a noble effort of the soul may bid defiance to physical agony and put a temporary check to the onward march of death.

If a man submits himself to his fate without repining; if he yields to the advice of friends, and consents to all the treatment proposed, he generally does well. On the contrary, if he bitterly deplores his fate, is too anxious about the means of cure, and impatient when relief cannot at once be obtained,—we may then consider that a constitutional irritation highly unfavorable to recovery exists. In this day "moral therapeutics" possess a higher value than in former times. We have high degrees of mental disquietude in all classes of society; we have the excitements of progressive civilization of misdirected education and discipline, of commercial vicissitudes, political agitation, with all the disturbing elements that spring from all the passions. We refer briefly to a few of the prominent passions and their effects on physical health.

GRIEF.—The specific effects of grief are often witnessed by physicians when their efforts to prolong life has been unsuccessful. It lowers the action of the heart and arteries, and all the physical powers; arrests the secretions, especially that of the liver; and produces a low feverish state; there is defect of animal heat; the appetite fails; the mind becomes weaker. The three worst forms of disease to which man is liable—insanity, cancer and fungous hæmatodes—may arise from excessive grief. Anxiety of the mind produces diseases of the chest. The nerves and muscles lose their accustomed tone and energy. Over-anxiety sometimes causes sudden death from cerebral or cardiac lesion. A clergyman, who had preached at an hour when he was in a state of great anxiety to return home to his wife who was dangerously ill, fell dead in the pulpit immediately after he had pronouneed the blessing. Diseases of the heart were little attended to before the French revolution; but the trying scenes of that period called forth such a multitude of cases of this fatal disease, that a volume was soon written on the subject by Corvisart, who ultimately died of the same disease. The state of the stomach is modified by every impression on the mind; and thus arise dyspepsias, hæmorrhoids, hypochondriasis, jaundice.

FEAR.—Fear exerts a stronger influence over the powers of the body than any other emotion. When a patient declares that he *cannot* recover, this prepossession appears, says Cooper, to deprive the constitution of all powers to restore the body to health. A man came to this great surgeon with a stone in the bladder; the bladder was examined by a sound and the stone was touched. The patient was unwilling to believe it as he said he never could endure the pain of an operation for extracting it. The thought of it so weighed down his mental powers that he returned to the country and in a few days died. (Cooper's Surgical Lectures.)

Under the influence of fear the whole muscular system, involuntary as well as voluntary, is relaxed and unstrung; the skin is chilly and damp; the body is unable to originate its accustomed amount of heat; the circulation is hurried and irregular, and the blood is unequally distributed; the breathing is short and rapid, or takes place in intermitted deep-drawn efforts; the nervous system of sensation is, for thetime, in a state of exquisite and over-wrought tension, but soon to be followed by one of relaxation and exhaustion. Thus all the effects produced by fear or terror in a high degree are essentially depressing and enervating. When the degree in which the emotion becomes lighter the effects are of the same general character.

Cases are given in which serious and fatal diseases have been developed by merely *talking* of them in a way to make a well person fully believe he was becoming dangerously ill. Fear renders the system more susceptible of the morbific influence of contagious or epidemic fevers; it produces relaxation of the sphincters, causing enuresis, diarrhœa, dysentery, abortion; cholera has more frequently been caused by fear than any other disease. The only counteracting influences are confidence and hope. Under their influence physicians meet the pestilence in its own domain among the sick and dying, and hold up the Ægis of Minerva to shield a terrified people from its destroying powers.

Fear has also been employed as a curative agent in diseases which it had excited. Bœrhaave had a number of epileptic patients in a hospital seized at once with epilepsy from sympathy with a person who fell down in convulsions before them. He ordered in the hearing of the patients that hot irons should be prepared and applied to the next person who fell into a fit of the same kind; but no fit occurred afterwards. An officer in the Indian army had asthma and could only breathe in the erect posture. A party of the enemy broke into the camp. The officer mounted his horse and used his sword most efficiently. A semi-paralytic lady who had been helpless for years, was frightened by fire in the house, and rushed into the street. Hildanus says a man, disguised as a ghost, took a patient confined with gout down-stairs and left him. The terrified man found his way up again and never afterwards had the gout. Dr. Rush says, a man suffering from gout was alarmed by a window into his room being broken by the shaft of a wagon being driven through. The patient leaped from the bed in a violent passion forgetting his crutches. Dr. Gregory says, an officer at sea was cured of gout by an alarm of fire. Watson says, "a fit of the gout has sometimes been *brought on* by a mental shock." I have seen a severe paroxysm of intermittent fever dispelled in the case of a very robust man when he saw a favorite child seized with convulsions caused by the same disease.

The influence of mental emotions on the body in the course and progress of disease meets us at every step in practice. The fretful irritable child suffers more with croup or pertussis than one of milder disposition. Children are considered more difficult to treat since they are less able to explain their feelings; but, when we consider the depressing powers of the stronger emotions and passions of adult life, we acknowledge that it is in persons of mature age, engaged in combatting the perilous scenes of civilized life that the most perplexing problems of practice arise. In diseases of the respiration impatience and feverish fretfulness always increase the patient's sufferings. Instead of quiet resignation we see him restless, boisterously moving from one position to another, breathing deeply at one moment and expelling the air from the lungs by loud groans and murmurings at the next. The progress of phthisis is said to be retarded by sustained equanimity and resignation. In some cases we see a peculiar calmness and mental tranquillity which disarms the disease of much of that irritable feverishness that so rapidly wears out life. In impatient persons every thing goes forward unsatisfactorily; every motion gives pain, every thought is one of vexation, every sound is a discord.

The influence of depressing mental emotions is too often overlooked. "If a man dies," says M. Reveille-Parise, of the Paris Academy of Medicine, "we open his body, rummage among the viscera, and scrutinize most narrowly all the organs and tissues in the hope of discovering lesions of one sort or another; there is not a small vessel, membrane, cavity or follicle, which is not examined; nothing escapes the eyes of the anatomist." But one thing beyond his eye-sight does escape him. "He is looking at merely organic effects, forgetting all the while that he must mount higher to discover their causes. These organic alterations are observed, perhaps in the body of a person who has suffered deeply from mental distress and anxiety; these have been the energetic cause of his decay; but they cannot be studied in the dissecting room." Many physicians of extensive experience are destitute of the ability of searching out and understanding the *moral* causes of disease. They cannot read the *Book of the Heart*; and yet it is in this book that are inscribed, day by day and hour by hour, all the griefs, and all the miseries, and all the vanities, and all the fears, and all the joys, and all the hopes of man, and in which will be found the most active and incessant principle of that frightful series of organic changes which constitute pathology." (Moral Therapeutics Med. Chir. Rev., Oct., 1841.)

ANGER.—Anger causes tension of the muscles in every part of the body, impeding the free course of the arterial circulation; and the disordered breathing disturbs the easy transit of the blood through the lungs, and the current is thrown back upon the heart; This organ, in consequence, labors with inordinate and irregular power to propel it with redoubled force. Hence it is that, under its violent influence, a blood-vessel may give way in some part, or even "the golden bowl" may itself "be broken at the fountain." In this way many noted persons have died suddenly.

A gentleman, while engaged in entertaining a number of his friends, stamped with his foot in anger at one of his servants. The excitement immediately brought on an attack of hæmoptysis, and which ultimately resulted in his death. John Hunter ascribed the commencement of his heart-disease to a fit of passion.

Broussais and other physiologists have asserted that rage is capable of generating a most virulent and subtle poison, especially in the saliva. They refer to numerous instances in which wounds from enraged animals have been followed by effects that could only be accounted for by supposing some virus communicated. (Med. Chirur. Rev., Vol. 47, p. 369.)

Plato says in his Charmides, that "all diseases of the body proceed from the soul." The expression of the countenance is *mind visible*. Bad news weakens the action of the heart. Disgust oppresses the lungs and partially suspends all the functions of the system. An emotion of shame flushes the face; fear blanches it, joy illumes it; and an instant thrill electrifies a million of nerves. Surprise hurries the pulse, delirium infuses giant energy.*

Violent emotion sometimes causes instant death. Chilo, Diagoras, and

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* Dr. Amariah Brigham on the Influence of Mental Cultivation on Health. Hartford, 1832.

Sophocles died of joy at the Elean games. One of the popes died of an emotion of the ludicrous, on seeing his pet monkey robed in prontificals and occupying the chair of state. Muley Molock was carried upon the field of battle in the last stage of an incurable disease. Upon seeing his army give way, he leaped from his litter, rallied his panic-stricken troops, rolled back the tide of battle, shouted victory, and died. The door-keeper of Congress died with joy upon hearing of the surrender of Lord Cornwallis. Many eminent public speakers have died, either in the midst of an impassioned burst of eloquence, or at a moment when the deep emotion which excited it had suddenly subsided. William Pinckney, of Baltimore, Mr. Thomas Addis Emmet, of New-York, and the Hon. Ezekiel Webster, of New-Hampshire, are prominent examples in this country. Le Greve, a young Parisian, died a few years ago, on hearing that a musical prize, for which he had contended, had been adjudged to another. A Mr. Hills was arrested a few years ago in New-York for theft, and taken before the police court; although he was in perfect health, mental agony forced the blood from his nostrils; he was carried out, and he died in a short time.

Influence of Mental Emotions on the Heart.

FEAR, grief, and mental anxiety make the greatest depredations on the functions and structure of the heart. It was Corvisart, in modern times, who first drew especial attention to diseases of the heart, having his attention strongly drawn to the subject by the melancholy examples of it which were known to have been developed by the exciting scenes of the French Revolution. But many of the ancients have observed similar diseases. Chrysostome describes sorrow as a cruel torture to the soul, consuming the body and gnawing the very heart. Agrippa alludes to the palpitations of the heart and syncope induced by fear. But the most remarkable passage in all the old authors is the following by Melancthon: "Sorrow strikes the *heart* and makes it palpitate and pine away with *great pain;* and the black blood drawn from the spleen and diffused under the ribs on the left side, makes those perilous hypochondriacal flatulences which happen to those that are troubled with *sorrow.*" This is a true picture of cardiac disorder from nervous irritation of grief or sorrow. (Johnson on the Liver, &c., p 209.)

BROKEN HEART.—The question of the possibility of rupture of the heart by violent mental emotion has often been discussed. 1. Zimmermann gives one authentic case in that of Philip the fifth of Spain. On learning that his army had been defeated near Plaisance, he was overcome with grief and suddenly died. The author says, on opening his body the *heart* was found ruptured.

2. At the Hospital de Sal Petriere, in Paris, Mary Glinn, a widow, seventy years of age, and of remarkably good health previously, was astounded with the horrible intelligence that her daughter with two children in her arms had thrown herself out of a window and been dashed in pieces. The mother was so much affected that she changed to the color of a negro in one night. The black color was permanent, and she died in two years of pulmonic disease. (Jour. de Med., 1817.)

Influence of the Conditions of the Body on the Mind.

It is commonly known that a full stomach blunts the mind and feelings, and that an empty stomach is favorable to thought. The Creek Indians, when deliberating on national matters, use a "black drink" made of the parched leaves of the spice-wood boiled in water. This drink produces vomiting; after which they think they are in a fit state to deliberate on important public affairs.*

Debility of body has been often observed to be associated with the most expanded intellect, as in cases of Beaulieu, Erasmus, Pascal, Cicero, Pope, and others who were remarkable for debility of body and power of mind, Sickly children are often remarkable for great developmont of mind. In the following instances also we see great minds united with small bodies: Alexander of Macedon, Frederick King of Prussia, John Philpot Curran, Aaron Burr, Alexander Hamilton, Thomas Jefferson, James Madison, Andrew Jackson, Napoleon I, who was nick-named "the little corporal." Such men are not generally long-lived, extreme activity of mind wears out the body. Thomas Parr, who died in London in 1635, aged one hundred and fifty-two years, was a merely sensual man, deficient in mental power.

Plutarch says, that Cicero was at one time so thin and feeble from defective digestive power that he could eat but once a day, and then but very little. In this condition he travelled to Athens. This journey and the gymnastic exercises there made him firm and robust; and his voice, which before was squeaking and harsh, was changed to deep, melodious sonorous tones.

Of Julius Cæsar, Plutarch says: He was originally very delicate in health, pale, with a soft skin and a feeble constitution. He was subject to epileptic fits when he resided at Rome; but the hardships, and fatigues, and coarse diet of a military life, hardened his constitution, and he became healthy and strong.

Napoleon the First, although feeble in early life, improved his strength by abridging his hours of sleep. He placed an alarm-watch so that it would wake ten minutes earlier every morning; and, at last, fixed upon five hours as the proper time for sleep. In active service, he slept only from eleven to three, (only four hours). At one time he said, "whatever time is stolen from sleep is added to our real existence." On another occasion, he defined *sleep* to be "the cessation of our *voluntary* actions, whilst *death* is the cessation of those that are involuntary."

Verbascum Thapsus—Mullein.

Dr. W. Wilson, of Maryland, recommends Verbascum as a remedy for coughs and chronic bronchitis. He says, that by smoking a pipe-full of the dried leaves two or three times per day, the irritation is relieved, salivation and expectoration are promoted. For ten years he was himself a sufferer from chronic bronchitis. Every evening he became "hoarse, experienced great pain; dryness of the trachea; constant desire to clear the throat, disturbing his own rest and annoying others." He tried cauterization as low as possible with Nitrate of Silver, counter irritants, expectorants, and inhalation, but all to no purpose; finally he commenced smoking the Mullein, and "nothing could have been more speedy and efficient in procuring relief."

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* Dr. Gunn, Medicine, p. 107, p. 145..

Dr. Gardner says of the same plant: "I have for some time past been desirous of finding a drug possessed of calmative or narcotic properties, as a substitute for Opium and its Alkaloids, for administration in catarrhal coughs, bronchitis, and asthma, and to induce sleep in patients who suffer from headache and other unpleasant effects after even small doses of ordinary narcotics." He found Verbascum a popular remedy in some localities for bronchitis, and has been used to stupefy fish. A tincture, prepared from the flower-stalks just when coming to seed, is of a dark, rich, brown color, looking like tincture of Opium, and apparently containing a large quantity of solid material. A dose of a drachm produces calm sleep, and is not followed by headache nor unpleasant symptoms which follow Opium; it does not arrest secretion as Opium does. It is more active and certain than Hyoscyamus.

Microscopical Examination of the Air.

A SERIES of experiments, originated by M. Revial at the Hospital Lanboisiere, has shown the experience of a large amount of organic matter floating in the air. The dust collected from one of the wards contained 36 per cent, chiefly composing epithelial cells, exhaling the smell of calcinated horn or bone. In the air of those rooms where there are sufferers from contagious inflammation of the eye-ball, small corpuscles were detected by the microscope, analogous to the virus thrown off from the inflamed eye. It is, therefore, to be assumed, on evidence strictly logical, if not absolute, that the infection is mechanically conveyed by the air.

Diagnosis of the Wound of Garibaldi by Mr. Nelaton.

THIS eminent Paris surgeon, having been called by the patriot General and his attendants to give them the benefit of his opinion on the subject of amputation, proceeded to Spezzia for that purpose. After examining the state of the general health, which he found satisfactory, and sounding and inspecting the wound, he said: "General, I am happy to say that I do not think amputation necessary, as the ball may be easily extracted." The patient replied: "I far prefer this solution to that previously given, and I am very thankful to you." In a written report, Mr. Nelaton says:

"I think that the ball lies within the wound, and that the probe strikes against it when introduced about an inch into the part, I must say that my impression, as to the state of the wound, was very favorable when the limb was freed from the dressings." The patient is not in danger at present; the pulse is good; the skin cool; the appetite sufficient; sleep satisfactory;

and the aspect of the patient excellent. As to treatment, I think the opening should be gradually widened for some days, towards the foreign body, by means of dilating substance. At the end of five or six days, the wound will be large enough to admit of extraction with the ball-forceps. It is preferable to extract thus gradually, rather than by immediate means, which would be quite practicable. Summary measures of the latter kind would present some difficulties; they would give rise to much pain and fever. They are, moreover, not imperiously required, as the patient's general health is every day improving."

"The wound is situated on a level with the anterior margin of the inner malleolus; it is circular, and measures a little better than an inch in diameter. Its surface is occupied by a layer of healthy-looking granulations, and presents, in its centre, a little depression, whence a small quantity of laudable pus is emerging; hardly a teaspoonful was on the dressing, which latter had not been disturbed for fifteen hours.

"The probe passed very easily, and without giving pain. When it had reached the depth of an inch, it was arrested by a hard substance which, striking it, gave that dull sound, very different from the sharp noise resulting from the contact with necrosed bone. Nor was the peculiar sensation yielded by cancellated bone experienced. By slightly depressing the probe, it glided over the first obstacle, it passed on to the depth of about two inches, and was stopped by an osseous resistance at a short distance from the external malleolus." The general health "is as favorable as possible considering the severity of the wound, the pain experienced and deprivation of sleep for almost thirty days. All febrile symptoms have disappeared (pulse 75); the skin is cool, and the appetite good. Sleep is now sufficient and refreshing; the aspect composed and dignified, without any expression of suffering." "It is evident that the joint is open; that it has been inflamed; that the bullet is, though not in the articulation, at least in the vicinity; and that the resisting body met by the probe at less than an inch from the opening of the wound, is no other than the bullet lodged in the depression anterior to the pulley of the astragalus—viz., on the neck of that bone. The demonstration or nearly so, of this fact is found in the circumstances of the wound—viz., the direction of the shot, the shape of the ball (conico-cylindrical), the perforation of the boot and stocking in which the ball had not been found, the shreds of leather extracted at different intervals from the wound, the tumefaction observed immediately after the infliction of the injury in a point almost diametrically opposite to the aperture of entrance, &c., &c.; the peculiar sensation and dull sound produced by the striking of the probe, a sensation which may, perhaps, leave some doubt on the mind, but which, being added to the other elements of diagnosis, seem to me to furnish more than probabilities."

Such was the opinion of Mr. Nelaton. Its correctness was proved by the following telegram received by him on the 23d ult, from the Prefect of Pisa: "This morning, at ten, Professor Zanetti removed the ball from the General's foot. All honor to your diagnosis." This fortunate result was mentioned by the surgeon to his class at the Hospital des Cliniques, and he made further remarks on the means of diagnosis: "On my return to Paris, I endeavored to contrive exploring instruments which should convince those who were not of the same opinion as myself. I thought first of a sound ending in a kind of file, which should take off a few metallic particles. I had some constructed, but Mr. E. Rousseau gave me the idea of an instrument which would bring away particles of metal. We had, therefore, a probe made, to the end of which was fixed an olive-shaped body, made of polished china, upon which mere contact would leave a mark of the projectile, and prove its presence. Instruments of this kind were made composed of a silver stem ending in a china knob. The mere rubbing of this instrument against lead is sufficient to make a stain, which neither the soft parts nor the morbid secretions could obliterate."

Reviews and Bibliographical Notices.

1. *Homœopathy the Science of Therapeutics.* By CARROLL DUNHAM, M.D. 8vo.; pp. 59. New-York; reprinted from the *American Homœopathic Review.* J. T. S. Smith & Sons. 1863.

A NEW work, devoted to the scientific principles of homœopathy, will be welcomed by the thinking men who have faith in their own practice and in the precepts of Hahnemann; and we may sincerely hope to find for the present work a fit audience among the successful practitioners, who have more faith in the curative power of their remedies than in any theory yet brought forward to explain their success. That homœopathists cure more cases of disease—do more good and less harm than any other order of physicians in this or any other age—we are entirely satisfied. But the process by which this grand success is achieved is about as much out of the sight of the wondering people as are those occult powers wielded by the greatest of *prestidigitateurs.* The homœopathist transforms a diseased body into a healthy one with astonishing facility; but *how* he *does it* is very often—perhaps generally—a mystery to himself. The author of the present work has not been satisfied with curing diseases, without at the same time being permitted to look behind the curtain and see how it is done; and he now makes an effort to define the boundaries between the things that *can* be done and those which *cannot* in the present state of therapeutics. He says he has been "compelled to meet the following questions, which have perplexed and still perplex and divide our school;

"Is the homœopathic law of cure sufficient for all procedures required in the treatment of the sick?

"Or is it, on the contrary, only a part of a still broader generalization?

"Or again, are there *other* laws which are *sometimes* to be our guides in therapeutics? and if so, *when* are they to be used?

"Are so-called 'auxiliary' means ever requisite? and if so, how does this fact effect the jurisdiction of the law of cure?"

"Those who give only a *limited* jurisdiction to the therapeutic law deduce their *faith* from their *practice;* but they have never given a satisfactory definition of the *boundaries* of this limited jurisdiction.

"Those, on the other hand, who claim exclusive dominion for the therapeutic law belie their faith by their practice; for in treating the sick they do, as a matter of fact, avail themselves of means and methods which are not authorized by this law.

"Yet neither party should be called dishonest. The truth is, their clinical instinct, their practical sagacity, has outrun their philosophical acuteness. Each party has felt its way nearly to the true ground, but neither has succeeded in vindicating its claim to consistency in occupying that ground.

"The result has been, on the part of the homœopathic practitioners, an uncertainty of their true position in relation to old-school medicine, and consequently a degree of distrust on the part of the community.

"It has seemed to me, that these difficulties might be removed, and the perplexing questions fairly answered, by an elaboration of the nature and relations of the sciences of therapeutics and hygiene, which would show:

"That *therapeutics* concerns herself only with the discovery and selection of an individually specific remedy for each individual case of disease, which is done in accordance with a therapeutic law. This law may be the homœopathic formula, or it may be some broader generalization; but there can be but one law of this kind.

"That the province of hygiene is to discover whatever causes may have contributed to induce or perpetuate the diseased condition, and if possible to remove them.

"That hygiene alone is sufficient to restore many sick persons to health, and that it is in most cases an indispensable aid to therapeutics; that therefore, the practicing physician is at one and the same time hygienist and therapeutist,—employing often, therefore, for the same case both specific remedies and various 'auxiliaries.'

"That in so far as hygiene is concerned, homœopathists and allopaths occupy common ground,—the philosophy of the science being the same for both, however modified and shaded in practical application by the different therapeutics of the two schools.

"That in therapeutics alone—that is in the discovery and selection of the individually specific remedy for each individual case of disease—do we differ radically from the old school of medicine; the allopaths having in fact no science of therapeutics whatever, *their philosophy of cure being an application of the principles of hygiene to all diseased conditions.*

"The natural sequence of a study of the philosophy of the science of therapeutics is the question how to make a practical application of it in the treatment of the sick. I have therefore written of the study of the materia medica." These propositions are elaborated in a manner sufficiently clear and satisfactory.

"The nature and limits of the sciences of hygiene and therapeutics" are thus illustrated: "The living organism possesses a susceptibility to the action of certain general stimuli, such as light, heat, electricity, aliment, atmospheric air, &c. The action and re-action of these stimuli and this susceptibility are the conditions of life. So long as they act upon it in a due relative proportion as regards intensity and quality, the equilibrium of the functions is preserved, and the organism continues in healthy action. The absolute withdrawal of one of the stimuli for any considerable length of time results in death. A disturbance of their due proportion in respect of intensity or quantity produces an abnormal performance of function in the organism—a deviation from health—disease."

But why is it, that the perpetually varying proportion of these stimuli, and the continually changing relative susceptibility of the organism to their effects constantly result in disease? "Because the organism is endowed with either a faculty of provisionally supplementing to a limited extent one stimulus by another, or with a kind of elasticity, a power of enduring for a certain time a disturbance of the equilibrium of these stimuli, and of rebounding to a normal performance of functions again so soon as the natural proportion of the stimuli is restored, or the deficiency made up. In this respect the living organism differs from an inorganic machine, which cannot in the nature of things possess any power to endure a disturbance of that equilibrium of forces, which is the condition of its normal working, without a disorganization from which it has no inherent power to recover."

"But in the organism this elasticity has its limits. This '*vis medicatrix naturæ*' is not inexhaustible. If the true proportion of the stimuli remain too long disturbed, the functions of the organism become permanently deranged,—at least to such an extent, that no restoration of the balance of the stimuli will cause a return to their normal performance. The functions are and remain deranged; disease has occurred—'disease which has no tendency to revert to health,' under the influence of the general stimuli alone; 'and a new element must be sought for and introduced, the action of which upon the susceptibilities of the organism may cause a restoration to health. This new element will be a *special* stimulus; being foreign to the organism, and different from the general stimuli, not only must it act upon susceptibilities in the organism which the latter do not awaken, but the formula which shall express its relations to those susceptibilities, and which shall furnish the rule for its employment, can never be discovered by the study of physiology; for physiology concerns herself with the relations of the *general* stimuli aforesaid, and the *general* susceptibilities of the organism. This formula of the relations of *special* stimuli and *special* susceptibilities can be discovered only by the application of induction to a multitude of instances of the action and re-action of *such stimuli* and *susceptibilities*, and confirmed by subsequent deductive verifications. This formula will constitute an empirical law, which will be the law or fundamental principle of *therapeutics*. For the application of *special* stimuli to the *diseased* organism is the domain of the *science* of *therapeutics*, while all that concerns the *restoration and maintainance of a proper equilibrium of the general stimuli* appertains to the *science of hygiene*."

The "*conditions*" to which a science of therapeutics "must be subject, and which may therefore serve as tests of its fitness to be regarded as a science, are shown to be: *First.* "A capability of infinite progress in each of its elements, without detriment to its integrity as a whole;" and, *Second.* "That it shall provide for the prediction of future events within its own domain. It must furnish means of *prevision.*" As is said by Whewell (Philosophy of the Inductive Sciences, Vol. 2, p. 64–65): "Men cannot help believing, that the laws laid down by discoverers must be in a great measure identical with the real laws of nature, when the discoverers thus determine effects beforehand, in the same manner in which nature herself determines them when the occasion occurs. Those who can do this must to a great extent have detected nature's secret,—must have fixed upon the conditions to which she attends, and must have seized the rules by which she applies them. Such a coincidence of untried facts with speculative assertions cannot be the work of chance, but implies some large portion of truth in the principles on which the reasoning is founded. To trace order and law in that which has been observed, may be considered as interpreting what nature has written down for us, and will commonly prove that we understand her alphabet. *But to predict what has been observed* is to attempt ourselves to use the legislative phrases of nature; and when she responds plainly and precisely to that which we thus utter, we cannot but suppose, that we have in a great measure made ourselves masters of the meaning and structure of her language. The *prediction of results*, even of the same kind as those which have been observed in *new cases*, is a proof of real success in our inductive process."

That old-school medicine in any of its modifications does not fulfill these requirements of true science, has been so often proved and confessed in open court, that we have no room here to record the evidence, the confessions, the verdict of the jury, or the sentence of the court. The claims of the new system of medicine, called homœopathy, which has not wearied all human tribunals with thousands of years in claiming the worship of the nations, we should at once proceed to investigate; but such an investigation as would do justice to the present work,—or the cause of true therapeutic science would need to be extended too far for our present purpose. Let every student of practical medicine, who wishes to reach the highest attainable skill in the cure of diseases, begin the investigation anew, and *give the remainder of his life to the study of the homœopathic materia medica.*

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2. *Principles and Practice of Obstetrics.* By Gunning S. Bedford, M.D., Professor of Obstetrics, the Diseases of Women and Children, and Clinical Obstetrics, in the University of New-York; Author of "Clinical Lectures on the Diseases of Women and Children." Illustrated by four colored plates and 99 wood engravings. Third edition carefully revised and enlarged. New-York, W. Wood & Co., 61 Walker Street, 1863.

An author, who has run the gauntlet of the medical press, and neithe been wrecked on the charybdis of criticism or the scylla of excessive praise may *sometimes* be supposed to be satiated with compliments and quite easy under censure. Like a forest chieftain, rapt in a heroic euthanasia, he may refuse to notice trifles, and may pay no attention to the difference between fire-brands and scalping-knives, scalpels and tomakawks. The author of the present work has certainly by this time reached that serene height of an author's ambition which leaves us not much to say for him. If we say that he has been twice round the course and distanced competitors, and now, at the end of thirteen months, he is again on the track with a *third* edition, we say all that is necessary to give him a clear field. The best service we can render our readers is to turn to the book itself, and examine at some length the facts and principles brought forward by the author in illustration of some one of the many subjects so elaborately treated. We select for an extended analysis the chapter on uræmic or puerpural convulsions.

CAUSES WHICH, THROUGH CENTRIC ACTION, ARE CAPABLE SO FAR OF DISTURBING THE NERVOUS EQUILIBRIUM AS TO OCCASION THE CONVULSIVE SPASM.

The central causes of convulsions are divided into *psychical* and *physical*. Under the former head are included all operations on the mind, known as emotions; as grief, joy and all depressing or exciting passions.

Physical Causes.—Various pathological conditions of one or other of the two great nervous centres, the brain and spinal cord: as plethora, which by inducing congestion of these centres, may provoke convulsions; an anæmic state of the system may do the same thing; diseases of the brain or spinal cord, whether of the substance or coverings, is also a centric cause.

But a more important, though less understood cause of convulsions has recently been discovered in certain poisonous conditions of the blood now known to originate in morbid elements contained in the urinary secretion, and but imperfectly eliminated from the blood. The connection between the state known as blood-poisoning or toxæmia and puerpural convulsions has been fully established by the labors of several authors; but whether the blood-poison consists in the reabsorption into the blood of albumen, or whether the convulsions are caused by uræmic poisoning is less definitely settled. In 1853, Dr. Bedford said (in a paper then published "on uræmia"), authors at that time were "almost unanimously of the opinion that albuminuria is the cause of these convulsions." "Now," said he, "I contend that puerpural convulsions are nothing more than uræmic phenomena, as is proved by their causes, symptoms, diagnosis and pathology. If then, puerpural convulsions be the result of uræmic intoxication, they are not necessarily produced by albuminuria. There is often a coëxistence of puerpural convulsions, albuminuria, and œdema, general and local; but each one of these conditions has existed irrespectively of the other."

Relations of Albuminuria to Eclampsia.—Edward Robin supposed the "passage of albumen into the urine" to be "the result of imperfect combustion; that urea is produced by the oxygenation of the albumen in the blood, and if the oxygenation do not take place the result will be albuminuria." Of this hypothesis, Dr. Bedford says (in the present work, p.

505), that its demonstration is at least "difficult, for the obvious reason that when albumen passes into the urinary secretion, the quantity of urea, as a necessary consequence, should not be increased in the blood. It is, I believe, conceded that, although albumen does occasionally exist in the urine without a diminution in the fluid of urea, yet the converse of this is very often observed, viz., an increase of urea in the blood co-existing with albuminuria."

Having shown that these facts cannot be reconciled with the explanation given by Robin; and also, that the opinion of Williams attributing albuminuria to "nothing more than congested kidney," is "far too exclusive," our author proceeds to prove that "the presence of albumen in the urine is not traceable to *any one* influence;" but is due to some one of the following causes: 1. A change in the composition of the blood; 2. A change in the kidney, either structural or dynamic; 3. Pressure on the renal veins.

1. *Change in the Composition of the Blood.*—The old doctrine of "peccant humors" in the blood has been in and out of fashion several times in the course of a few ages; at present it is a sort of *tenant at will* on the premises of all the sects and schools. These "ill humors" are admitted to form a considerable portion of the body of *every body*; and are supposed to be about as malignant as "that rash humor" which Cassius received from his mother. The only hope of humanity is in the vigilance of "those organs through which these humors or poisons pass from the economy," called glands. Fortunately each gland has only one specific duty "assigned to it—that is one of these glands furnishes an outlet for one character of material in the blood, and another gland for a different substance. Thus, while the liver is engaged in the secretion of bile, &c., and the kidneys water, urea, &c." other glands have their specific offices to perform.

Now if these trusted sentinels would but faithfully perform the duties assigned them, it is supposed that health might be perpetual; and a man might live as long as the anticipated life of Patrick's friend, who, but for a certain accident, "would surely have lived all the days of his life." Since this is not the case, and toxic materials are constantly being permitted to accumulate in the blood, we will follow a little further the morbid results of such accumulation.

"In a variety of diseases occasionally accompanied by albuminuria, such as cholera, scarlatina, diabetes, &c., the constituents of the blood become changed by the introduction either of a poison or some other substance. If this occur, it is quite manifest that the blood is no longer normal, and because of its altered condition, its elaboration in the kidney will also be modified; so that in lieu of the ordinary elements contained in the urine, we shall sometimes recognize albumen, an absence of urea and other pathological phenomena. May this not be satisfactorally explained on the principle that the product of endosmosis will be modified in proportion to the change in the fluid on which it acts? Again, the blood is changed in pregnancy" by various other well known circumstances.

2. *Structural or dynamic change in the kidney* may result in albuminuria, though the precise conditions on which it depends may not be known:

though the presence of albumen in Bright's disease and scarlatina "may be due to a desquamation of Bellini's tubes, yet this cannot be said of many other affections of the kidney in which albuminuria exists, but in which no desquamation takes place. Experiments have been made which seemed to show "that the urinary secretion is not absolutely dependent upon the nervous system by Segalas and by Dr. Brown Sequard (Experimental Researches applied to Physiology, &c., Phila., 1852, p. 13), while on the other hand it has been satisfactorily shown that the nervous system may, under certain circumstances, exercise a marked influence over this secretion." Marchand "has produced in a dog not only all the symptoms of uræmia, after placing a ligature on the renal nerves, but also discovered urea in the blood, and in the matter vomited by the dog." Albuminuria has also been produced by different experimental physiologists by operating on the sympathetic nerve of the neck, the cerebellum and the medulla oblongata; and we have sufficient evidence to establish the fact of the direct influence of the nervous centres—when diseased or injured—"over the urinary secretion; and it is quite possible that the irritation of the uterine nerves during pregnancy, and in many of the diseases, both organic and functional, of the uterus itself, may, through reflex action on the medulla spinalis, produce various morbid changes of the urine. The influence of mental emotions, as fear, grief and anxiety, have long been observed.

3. *Pressure on the Renal Veins.*—Robinson, Meyer and Frerichs have abundantly proved that a ligature tied more or less completely around the renal veins will cause albumen to pass from the blood into the urinary secretion; and again, when the renal veins have become obliterated, in every instance in which the urine was examined, albuminuria was detected. In gestation albuminuria is often caused by pressure of the enlarged uterus on the renal vessels. In one case of this kind, Dr. Brown Sequard placed the lady in such a position as to diminish the pressure, and after a certain time the urine ceased to contain albumen. When the ordinary attitude was resumed, there was soon a reappearance of the albumen in the urine.

Blot detected albuminuria in 11 cases out of 106 multiparæ, or 1 to 10; and in 30 cases out of 99 primiparæ, or as one to three. The number of fatal cases out of the whole number of albuminous subjects is large. Goubeyre says that out of 65, 27 died; and out of 159 laboring under albuminuria 94 were attacked with puerpural convulsions.*

Relations of Albuminuria to Uræmia.—"Uræmia consists in disturbed action of the two nervous centres—the brain and spinal cord—producing either coma, partial or complete convulsive paroxysms; the disturbance being directly traceable to the action of a peculiar poison on these nervous centres. They may be affected separately or together; and hence there may be three forms of uræmic poisoning: 1. A state of stupor supervenes rather suddenly, from which the patient is with difficulty aroused, soon followed by complete coma, with stertorous breathing, &c., as in ordinary narcotic poisoning; 2. convulsions of an epileptic character, often affecting the entire muscular system, suddenly occur, but without loss of consciousness; 3. coma and convulsions may be combined."

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* Mémoires de l'Academie Imperiale de Medecine, 1856.

"The presence of albumen in the urine is not necessarily followed by uræmia in the blood. Dr. Bedford shows (p. 510) that albuminuria very frequently exists without any development of uræmic intoxication; it often exists in persons in apparent good health; also in cases of "articular rheumatism, inflammation of the thoracic organs, intermittent and typhus fevers, in measles, cholera and in chronic affections of the liver. In transitory renal catarrh, occurring as often in erysipelas as in scarlatina; albumen, together with the well-known epithelial cylinders of Bellini's ducts, is found as constantly in the urine as in inflammatory affections of the kidneys, where it exists in common with the fibrinous plugs from the same ducts, as in true Bright's disease." The urine also "becomes albuminous in croup, in ascites, in capillary bronchitis in the advanced stages of gestation, in emphysema accompanied with dyspnœa; in pulmonary phthisis, in cyanosis, diabetes, &c., &c. Experiments are referred to in which albumen was found in the urine of healthy persons who had only made the ordinary diet to consist of eggs; on every side the evidence is sufficient to show that albuminuria "may exist in the urine independently of any disease of the kidneys, and without any of the nervous disturbances characteristic of uræmic intoxication."

We do not therefore find, that there is any necessary and constant relation between Bright's disease and albuminuria, or between these affections and puerperal convulsions and uræmia: "In 100 cases of Bright's disease, only from 60 to 70 were affected with uræmic eclampsia; and another extremely important fact, says Dr. Bedford, "is this: Bright's disease is not uniformly recognized in cases of fatal eclampsia. This latter circumstance is to my mind a very decided negative to the necessary relation between Bright's disease and uræmic convulsions."

Toxical Properties of Urea.—It was first detected in the urine by Rouelle in 1771; was obtained pure by Prout in 1817; and has been compounded artificially from cyanic-acid and ammonia, being the first organic compound ever artificially produced. It has been generally admitted to be a poison, producing coma, convulsions, and other nervous phenomena, though its precise toxic character has not been settled. Experiments undertaken with a view to the establishing of this common opinion, have not resulted in proving that urea is capable of causing convulsions. The kidneys have been extirpated without causing convulsions; and even the injection of urea and urine into the veins "never in a single instance" produced a case of convulsions. Other observers have detected large quantities of urea in the blood, in cases in which "there was no approach to uræmic disturbance." Vauquelin and Segalas have proposed to administer Urea as a diuretic remedy.

After reviewing the results furnished by these authors, Dr. Bedford concludes, "that urea, to say the least, is not a very virulent poison; its excess in the blood will not *per se* produce uræmic intoxication, nor will it explain the numerous phenomena which are so frequently found to accompany its presence in the circulation." May not these phenomena then be produced by *some other agent*, which has generally happened to be associated with urea in the diseased condition, called uræmia? "Frerichs has attempted to demonstrate, that uræmia depended neither upon a diminished quantity of urea in the urine, nor upon an excess of this substance in the blood, nor upon albuminuria; *but that it is traceable solely to carbonate of ammonia in the system, which, he says, is formed through the agency of a ferment from the urea itself;* or, in other words, "*that uræmia is exclusively due to the transformation of urea into the carbonate of ammonia.*" Dr. Bedford says, that "there is no proof as to the manner in which this transformation is accomplished; but the major part—viz., *dependence of uræmia on the presence of the carbonate of ammonia*—seems to rest on strong and cumulative testimony." Some of this testimony may be summed up in few words: Orfila produced convulsions in an animal by giving it carbonate of ammonia internally. The animal became convulsed and died. Brown-Siquard has shown, that "Carbonate of Ammonia injected into the stomach, does not poison; but it is absorbed slowly, and passes off through the lungs with carbonic acid. But if it be injected in a certain amount into the blood, it has time to act on the nervous system, and to cause convulsions before it is expired. Dissection of those who have died of uræmia shows, that there is in these cases no organic lesion of the nervous centres, proving that death results only from direct poisoning.

Carbonate of Ammonia has been detected in the stomach and intestines of animals after the removal of the kidneys, and in the matters vomited by patients affected with cholera; also in certain cases in the blood, and in the exhalations; but the bearing of these facts was not appreciated till Frerichs declared, that he had by chemical analysis ascertained that this salt existed in the blood in variable quantities in all cases in which the symptoms of uræmia are developed, and that he has proved beyond a doubt the correctness of the following propositions: "1. *That in every case of uræmic intoxication, a change of urea into carbonate of ammonia takes place;* 2. *That the symptoms which characterize uræmia can all be produced by the injection of carbonate of ammonia into the blood.*" In his experiments "he has frequently detected the alkaline salt in the expired air of animals deprived of their kidneys, and into the veins of which he had injected urea; these animals remained quiet and awake as long as the expired air was not impregnated with the ammonia; but the moment the latter was observed, the various disorders of the nervous system characteristic of uræmic poisoning developed themselves. These views of Frerichs will necessarily tend to the settlement of a vexed question, which has called forth the ingenuity of both the physiologist and chemist. It may, however, be, that the future will reveal the existence of other poisonous materials in the blood, which to the present time have eluded observation; and in their recognition we may find additional causes for the production of toxæmia. It has indeed been suggested, that in Bright's disease, the accumulation of oxalic acid in the blood will develop the symptoms of uræmic intoxication.

In cases of puerperal convulsions Braun attributes the death of children to the same cause as that of the mother, who dies from uræmic convulsions —viz., the poisoning by carbonate of ammonia, *which poison is found in the fœtal blood.*

TREATMENT OF URÆMIA.—The first object is, "to restore the action of the principal eliminators of the system, such as those of the kidney, skin, and bowels, with a view of diminishing through these outlets the quantity of urea and noxious elements, which may exist in the blood. The second is the protection of the nervous centres, as far as may be, against the injurious effects of Carbonate of Ammonia.

It is known, "that the skin contains an immense number of glands which, anatomically speaking, are similar to the corpuscles of Malpighi in the kidney, and which glands secrete water, urea, and salts." It is therefore supposed, that diaphoretics may be employed to advantage in carrying off through the skin the poisonous elements from the blood on which the fatal symptoms depend. But unfortunately it has always been found impossible in practice to realize these desired results. We have seen in patients slowly dying from uræmia the skin profusely bathed in perspiration strong with the urinary odor, but none of the symptoms of uræmic poison were mitigated by this excessive flow of fluid charged with poisonous elements from the skin. Any quantity of diuretics may be employed—*some* poisonous materials may be expelled,—but so far as such measures can go, the patient must die. Can then the poison be neutralized? "Frerichs has strong faith in Benzoic-acid in doses of five or ten grains, with iced acidulated drinks." A true remedy must act on a different principle.

The relations of Carbonate of Ammonia to uræmia, as often manifested in scarlatina and some other diseases, have often been indicated by homœopathic authors, and the subject deserves further investigation. Let us have a few more facts, and we think their application can be shown to be quite important.

Anæsthetics.—"Chloroform and Sulphuric-ether have been repeatedly employed with favorable results; and Professor Simpson, having learned from the chemists, "that chloroform produces a temporary diabetes mellitus, causing, of course, the appearance of sugar in the urine, and perhaps also in the blood; and that the addition of a little sugar to urine *out* of the body prevents for a time the decomposition of its urea into carbonate of ammonia." He "suggests that the efficacy of anæsthesia in restraining and arresting uræmic convulsions may be upon the ground of its preventing this decomposition." We may acknowledge the value of Chloroform in uræmic convulsions; but we would explain its mode of action on a different theory.

Colchicum.—Professor Krahmer, of Halle, showed by experience, that the average quantity of urea secreted during the day in healthy urine is 19.64 grammes, though the tables of Becquerel give 16 grammes. Krahmer shows, that under the influence of Colchicum, the urea is increased to 22.34 grammes; and under the administration of guaiacum to 22.74 grammes. From the experiments of Krahmer, therefore, it appears that these two remedies produce a greater secretion of urea than any known remedies. Dr. Hammond (*American Journal of Medical Sciences*, 1859, p. 275) has also tested the superiority of Colchicum over several other diuretics.

We find the third edition of Dr. Bedford's work enlarged and improved in many respects. The chapter on Phlegmasia Dolens is the most complete and comprehensive monograph that has been written on that disease. We propose on another occasion to make it the subject of an analytical review. Of the work as a whole, we need only say now, that it has in the fullest manner sustained the opinion we pronounced upon it on first publication.

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3. *A Course of Clinical Lectures on Diphtheria.* Delivered before the Class of Hahnemann Medical College, Chicago. Session of 1862–3. By R. Ludlam, M. D., Professor of Physiology, Pathology, and Clinical Medicine. Chicago: C. S. Halsey, 136 Clark-street. 1863. pp. 126; 8vo.

We do not now remember the number of the "plagues of Egypt" which afflicted the tyrant Pharaoh; nor yet the number of other plagues which have originated in that same famed "land of science," and thence spread over other countries. Some of them are well known to the world, and the last of them all is in a fair way to become familiar to physicians in all latitudes and longitudes. Diphtheria, first described forty years, ago as "the Egyptian disease," has become acclimated in all the better portions of both Hemispheres. It has called forth a large number of separate treatises and elaborate articles in medical journals; but it continues to furnish a theme for discussion on which all men wish to hear all that the latest observer has to say; and, until the theory and treatment of the disease shall become a well-known and familiar thing, every man who presumes to write will be read, studied, criticised, and brought to the severe test of being *followed.* The responsibility of writing at all on a disease little understood, and often fatal, will be felt by the author, who obeys a positive call made upon him. He will write in the light thrown out by those who have preceded him; and will endeavor to concentrate the scattered rays upon the great object of successful treatment. We feel in taking up the present work, that it comes to us from the hands of a man who would not treat lightly a subject of such gravity. We must read his work carefully, and then furnish our readers, not with an abridgement of the book—as that would do justice to nobody and satisfy nobody—but proceed to announce the impression which the book may make upon the mind of an inquisitive reader. We can make such extracts only as will be necessary to indicate the author's ideas of the general nature and character of the disease.

1. *Definition.*—"Diphtheria or diphtherite is a word used to signify a specific affection, which should be classed among the *zymoses*, and is characterized locally by the formation of a false membrane upon mucous or abraded cutaneous surfaces.

2. *Varieties.*—We recognize but two varieties: the simple and malignant; though diphtheria may become complicated with other diseases, these complications do not properly constitute other varieties.

"Let us be plain and explicit. The best possible results in their treatment will spring from this distinction between the diphtheria simplex and the diphtheria maligna. That in nature they are essentially the same, there is but little doubt. In this they resemble the two forms of cholera, the cholera morbus and the cholera maligna; the points of resemblance are found to extend to the manner and time of their prevalence. These two general varieties of disease have indeed no very intimate relation. But we call your attention to a fact hitherto overlooked by the profession: that, as the Asiatic cholera prevails every year in the modified form of an epidemic—the cholera morbus,—so the diphtheria maligna—an epidemic whose terrible ravages are not less to be dreaded—has become more familiar and less fearful in the guise of an endemic, the diphtheria simplex."

According to this view of the nature of diphtheria, "it is not a new disease," but a modification of a disease long known; the two types under which it now appears differing "in proportion as they are modified by season, climate, epidemic constitution of the atmosphere, and other sources of propagation and development of a specific zymotic cause, as well as in the individual organic susceptibilities of persons who are seized.

"These contingencies make the types convertible," and cases of each may appear in the same house. Some physicians find nearly all their cases curable, and others find many malignant ones. "Or in a family of children, one may have the disease in the more severe, the others in the milder form. In this regard, as well as in the fact, that children seized with the diphtheria at a later period of its prevalence do not have it so badly as at first, it resembles scarlatina and other epidemic disorders."

The importance and significance of the different characteristic features of *diphtheria simplex* are fully discussed under the respective heads of "*Fever; the Tongue and Digestive Symptoms; The Throat: the Odor of the Breath; The Cough; The Gastric Symptoms; The Eruption; The Disorder of the Urinary Function; The Local and General Symptoms.*" "*The Differential Diagnosis*" is sufficiently clear in distinguishing between *diphtheria* and *tonsillitis*, *ulcerative stomatitis*, *rubeola*, *scarlatina*, and *epidemic influenza*. *Diphtheria maligna* is treated at greater length, and its general characteristic phenomena are illustrated under the following heads: "The Fever; The Cerebral Symptoms; The Throat and Fauces; The Larynx and Trachea; The Nasal Symptoms; The Membranous Deposit in Various Localities; The Hæmorrhagic Symptoms; Disorders of the Alimentary Function; Disorders of the Urinary Function; Deranged Innervation."

The diagnosis of *diphtheria maligna* is confined to an extended comparison between the symptoms of this disease and those of croup, scarlatina maligna, and gangrenous pharyngitis. On this branch of the subject and on the *prognosis* the author's exposition is lucid and satisfactory, though more brief than that of many other writers.

"*The Nature and Etiology of Diphtheria*" is discussed in the Fourth Lecture. "There appears but little doubt that this disease is zymotic in its nature, that its characteristic symptoms are the fruit of blood-poisoning, and that its first cause is to be found in a specific virus, which vitiates and depraves that most important fluid, and through this the structure and function of certain solids. The arguments in favor of a specific cause for diphtheria are based upon the facts, that it has traversed the world as an epidemic, and that the pathological lesion, which is its prominent characteristic, is as peculiar to this disease as the specific affection of Peyer's patches is to typhoid fever; or the cutaneous eruption, which goes through the three distinct and successive developments of papule, vesicle, and pustule is of the variola." After a review of the opinions of the principal observers, and the reasons on which those opinions are founded, Dr. Ludlam arrives at the following conclusions:

"1. Diphtheria arises from a specific invisible cause, which, in order to produce its legitimate pathological fruits, must first be introduced into the blood.

"2. The means for the introduction of this virus into the blood are two in number—viz., through the respiration and by inoculation.

"3. We cannot conceive of an epidemic cause which fails to occasion more or less contamination in the atmosphere. Local circumstances may concentrate such a taint, and thus render susceptible persons in the community more liable to contract the disease from breathing this atmosphere.

"4. In exceptional cases the diphtheria may spread in this manner by a thorough poisoning of the air which is breathed; but as a rule it is much more feebly contagious than either of the eruptive fevers. There is no evidence that it is ever conveyed by *fomites.*

"5. The only known method of successful inoculation is, that a portion of the vitiated secretions from either the mucous membrane or the skin of a diphtheritic subject be applied to an absorbent surface.

"6. Both these methods of communicating the disease will fail unless the individual constitution and local habits and surroundings of the subject afford a congenial soil in which the specific cause may develop its specific effects."

The anatomical characteristics of diphtheria are fully described in about a dozen pages, embracing such a summary and analysis of all that has been written on the subject as must render the work one of permanent value. We have only room to give the concluding paragraph.

"All of these symptoms and sequelæ point to the constitutional character of diphtheria. There is no question, but it is a systemic, and not merely a local disorder, which owes its essential characteristics to the presence of a species of parasitic growth, whether it be algous or fungous. It is *zymotic* in its origin, its characteristics, and its sequelæ. It is a disease *per se*, and not alone a dyscrasia. Like the typhoid fever, it has its general and its especial lesions,—the one systemic, and the other local."

The treatment of diphtheria is necessarily based upon the principles of its pathology, accepted as true by the author; he devotes to it the whole of the fifth and last lecture, grouping the different remedies under the various indications they are calculated to meet. Thus: "*The Constitutional Symptoms.*—For the febrile symptoms: Aconite, Belladonna, Gelseminum, Rhus-toxicodendron, Baptisia, Bryonia. For cerebral disorder: Phosphorus, Bell., Opium, Conium-maculat.—For the mouth and throat symptoms: Mercurius, Iodine, Mercurius-iodatus, Cantharis, Bichromate of Potassa, Rhus-tox., Iodide of Arsenic, Baptisia, Nitric-acid, Apis-mellifica, Baryta-carb., Belladonna.—For the coryza: Merc.-iod. and Bichromate of Potassa. For the gastric and alimentary disorder: Nux-vom., Bryonia, Opium, Veratrum-alb., Phosphoric-acid, Arsenicum-alb., Nitric-acid, Arsen.-iodatus, Merc.-iodatus, Cantharis.—For the eruption: Bell., Rhus-t., Bryonia, Pulsatilla, Nitric-acid, Arsen.-alb., Cantharis.—For the urinary disorder; Acon., Merc.-iodatus, Cantharis, Apis-mel., Ammon.-acet., Merc.-cor., Phos.-acid, Colchicum.—For the extreme debility: remarkable effects of Cantharis as a remedy for this.

The local treatment embodies a review of the effects of various chemical re-agents upon the false membrane. The hygienic treatment includes observations on diet, &c. The surgical treatment embraces tracheotomy, ablution of the tonsils, and tubing the larynx; but on none of these is any reliance placed.

Constitutional treatment by homœopathic remedies offers the only hope of life for the patient, or reputation for the physician. In his effort to select the appropriate remedy for the individual case, the practitioner, who has already "tried everything," will do well to come back to some agents not yet fully understood;—let him examine again the claims of such remedies as Mercurius-iodatus, Cantharis, Bichromate of Potassa, Tartar-emetic, Rhus-tox., Iodide of Arsenic, Nitric-acid, Bryonia, and numerous others, the indications for which are very clearly, though briefly, set forth in the present " Course of Clinical Lectures on Diphtheria."

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3. *The Homœopathic Treatment of Diarrhœa and Dysentery.* By P. P. Wells, M.D. Reprinted from the *American Homœopathic Review*, Vol. III. New-York: J. T. S. Smith and Sons. 1862. 8vo; pp. 40.

It has been said that the writer of "a great book" is nearly always chargeable with the infliction of "a great evil" on the public. A *great book* on a *small subject* is certainly worse than a long epitaph of which

> "One half can never be believed,
> The other never read."

But here we have a *small book* on a *great subject*. An author and practitioner of extensive experience proposes in the limited space of forty pages to lay before us two important diseases, one of which is more common, and the other more fatal than, perhaps, any other known to American physicians; and if he shall not find room to write *exhaustively* of either of them, he will give the results of observations extended through many years of practice, embracing the use of the remedies best known and most frequently tried. Such a work may be useful to the practitioner who expects to meet serious cases of diarrhœa or dysentery every week of his life; and especially in those parts of our country in which one of these diseases cause more deaths annually than any other disease has ever done, and where so many physicians, while vainly trying to cure their patients, find themselves dying from the same painful malady.

Dr. Wells begins his work by endeavoring to impress upon the young practitioner the fundamental principle that "he is not to treat *diseases*, *names*, *things* imagined somethings, which have somehow found their way into live humanity and made it suffer, and perhaps are bringing its existence into peril;" "that what he has to treat is the patient himself, and not an extraneous intruder within him." "He is to treat sick men, women, and children,—*patients*, and not *diseases*. This truth, "rightly appreciated, at once disposes of that complacent piece of arrogance which has asserted a superior science in the old school of our profession, because that school treats *diseases* while ours treats only of *symptoms*." True science "treats patients, not diseases. It may be and probably is true, that the old school treats diseases, or attempts this, and that they think they succeed; but it is not true of ours, that when we rightly appreciate and practice its doctrines, we "treat only symptoms." If there be one more false than another among the slanders by which the homœopathic school has been assailed, it is this. When rightly practiced homœopathy is cognizant of all those facts in relation to the patient, which constitute the difference between the man sick and the man in health."

"What then is disease? It is only a *condition*, not a *thing*. It is the sum of whatever modified actions of the vital forces, by which that harmony is lost, which conserves the integrity of all parts of the living organism. A knowledge of the totality of these modifications constitutes the science of *pathology*. A knowledge of the results of these modifications of their products and changed tissues, constitutes the anatomy of pathology. To call these *disease*, as many have done, is no less absurd than to call the residual contents of the intestines *digestion*. An analysis of these modifications, a resolution of them into their elements, is the first step in the process of all-right prescribing. By this proceeding only can the elements of a given case be exposed so that it can be seen what is individual in it, is characteristic of this member of a class, and these elements be separated from those which are generic, *i. e.*, belonging equally to all members of that class; a distinction without which a life of prescribing for the sick is a life in the dark."

What then "is the value of a nomenclature of diseases? Why attempt to name them at all? The answer is, "it is a convenience in the expression and interchange of ideas—indispensible, if you please. By the name is simply meant to announce a group of phenomena which are found in a given class of affections, and which belong equally to each member of the class, and which distinguish it from all other classes." Thus, by the term *Diarrhœa*, it is designed to express in one word the following group of *symptoms:* Frequent discharges from the intestines of feculent, secreted or undigested matter. It may be of either alone, or of either two, or all of them mixed."

These frequent discharges are farther diversified by certain peculiarities, thus: "They are *painful* or *painless*. The secreted discharges are *mucous*, *serous*, or *purulent*. These and the feculent matter are characterized by difference of *color*, as *black*, *brown*, *green*, *grey*, *red*, *white*, and *yellow*. And by difference of odor, as of *spoiled eggs*, *putrid*, *acid*, &c. And also by difference of time and circumstance by which the affection is either excited or aggravated."

The specific application of the individual remedies furnished by the homœopathic materia medica to individual cases of diarrhœa, is the author's objec in this portion of his book, and he certainly carries out this object with a degree of minuteness and accuracy which is most likely to be satisfactory to men who are willing to prescribe for fewer cases, and adhere closely to the "letter of the law" than to those who wish to do a large business and can afford to devote but little time to examinations.

The article on dysentery is a good one, though less full than that on diarrhœa. It is prefaced by some important preliminary remarks applicable to all other diseases. To the question of Hering, "what is the *like* which *cures*? the author replies, in Hering's own language (elsewhere given) "it is that which is *characteristic*." But this answer, though containing "the whole truth plain enough," only "forces another question, the answer to which lies at the foundation of all intelligent successes in practice. What is *characteristic?*" Any author who will *try* to answer this question deserves a fair hearing.

"Hahnemann, in his *Organon*, (Third Amer. Edition, p. 102,) says 'the totality of the symptoms is the sole indication in the choice of the remedies." By this declaration we must understand that "the elements controlling the choice are found in these symptoms, and no where else. But this expression, totality of the symptoms,' has been taken in connection with the direction to seek in the pathogenesis of drugs their similimum, a great hindrance to many, and the cause of much useless labor on the part of those who would conscientiously follow the directions of the master. These they have understood to require in the ascertained effects of the drug, a similimum to the *totality* of the symptoms of the disease. And in most cases, after long search they find, that for this they have sought in vain. It was not to be found. If, perchance, they did succeed, the cure certainly followed, because the whole must have contained those elements which effect that result. But this is not the direction of Hahnemann, as is evident after reading § 153, p. 173, of *Organon*, where he gives instruction as to those symptoms which are of controlling importance in the choice of a remedy, and those which may be safely passed with slight notice." Those to which we are to attend "particularly and almost exclusively" are "the *striking extraordinary and peculiar*." How are we to distinguish these from those which are less important?

"In dysentery, what is the 'like' which cures?" We must learn to distinguish it by separating between the two classes of symptoms, the *generic* and the *specific*. The *generic* symptoms belong to all cases of this disease. They are: "*frequent*, for the most part *small discharges from the rectum of blood, or mucus, or both, with colic pains, tenesmus, and fever*." If we seek for a remedy that covers *these* symptoms only, we may well be confused with the vast number of remedies under which they are found. We may try one after another before we stumble on the right one, feeling all the way that there is no precision attainable in the application of the boasted *law of cure*. Though these symptoms have only misled us, they certainly are "striking" symptoms. "They stand on the very surface, and are the first to arrest the attention." And yet we have failed to cure. Why have we failed? Because the symptoms we have attended to were such as might have been produced by a large number of irritating agents, and we could not distinguish which one was *specifically* qualified to do it.

The generic symptoms of disease are analogous to those symptoms in the pathogenesis of a large class of drugs, "which rather indicate that the organism revolts against drug assault, than point out the particular active agent in the assault;" as "the vomiting produced by one irritant poison is so like that of every other, that from this alone it cannot be told what that irritant is." "The *generic* symptoms, then, in which so *many drugs* agree, must be excluded "from the circle of curative relationship." "Where then are we to look for this? Evidently in the list of those symptoms which *individualize* both the *disease* and the *drug*. That which distinguishes the *individual case* of the disease to be treated from other cases of the same disease, is to find its resemblance among those effects of the *drug* which distinguish it from other drugs. This is what we mean when we talk of *characteristics*. When we say '*like cures like*,' this is the '*like*' we mean."

Such is the "*like which cures*" which the homœopathist perpetually seeks. The *individual* remedy for the *individual* case, we must leave him and our author to settle upon between themselves.

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4. *Remarks upon Archbishop Whately's Letter on Medical Trades-Unions.* By Wm. Bayes, M.D. (Hon.) London, 1863: H. Turner & Co. pp. 20.

This small work originates in the attempt of the Irish College of Surgeons to compel all orthodox physicians under its influence to refuse to consult with any homœopathist under any circumstances. The Archbishop of Dublin, being called on for his opinion of the propriety of this action of the Irish College, declared it a "detestable act of tyranny,"—another expression of that persecuting spirit which belongs to human nature in all other subjects, as well as religion. In Ireland the "trades-unions persecute any one who does not submit to their regulations." He says the majority of mankind are given to persecuting others; having "neither spirit enough to stand up firmly for their own rights, nor sufficient sense of justice to respect the rights of others, they will submit to the domineering of a majority of their own party, and will join them in domineering over others."

Dr. Bayes, of Cambridge, takes up the subject where the Archbishop leaves it. He shows, that the same system of persecution has been adopted by the British Medical Association; and that, like persecution everywhere else, it can only result in covering its authors and instigators with obloquy and ignominy." "That which is *true* in science cannot be stamped out by persecution; that which is *false* must fall by its own *untruth*, and needs no persecution to insure its demolition."

The author then proceeds to place in contrast the leading peculiarities of the old with those of the new system of medicine. He recapitulates some cases of attempts to force men, in spite of their own convictions of truth, to continue their adherence to a system of practice which they had proved to be false in its principles, and disastrous in its results; he relates the history of his own emancipation from the trammels of the "regular" harness, and thus compares his present position with that of his persecutors: "When I behold the pitiable spectacle of nearly the whole medical profession cringing in abject fear before the terrorism of a medical trades-union, whose fetters they dare not break, I am tempted to exclaim, with the deep-drawn breath of freedom from such a yoke, 'Thank God, I belong to the persecuted, not to the persecutors!'"

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5. *The British Workman's Family Guide to Homœopathic Treatment.* Second Edition. Henry Turner & Co., 77 Fleet Street, &c. London; pp. 160.

THIS miniature volume, though so small in size, is great in its significance and importance to the working people, to whom a small, plain book, and a few remedies understood are worth more than a *drug store* and a *college library* would be when compelled to prescribe for themselves. A large number of diseases are briefly described; and the application of a remedy is always so fairly indicated, that the common people can seldom fail to *begin well*, even in severer cases, in which they may fear to trust themselves with the entire management. Every small work of popular character is a "tract for the times," which will do its part in the great movement for the emancipation of the masses from the old despotisms under which they have so long suffered.

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6. *The Lung Disease in Cattle, or Pleuro-Pneumonia curable by Homœopathy; with Directions.* Seventh Edition. By JAMES MOORE, M. R. C. V. S., &c. London, 1862: Henry Turner & Co. pp. 22.

WE have some friends and some enemies who believe that much of the success of homœopathists is attributable to mental power of the practitioner operating through the imagination of the patient. That the only proper subjects for treatment by attenuated remedies, and especially high dilutions, are hysterical nervous persons,—zoomagnetic persons, who are only fit for clairvoyants or trance mediums. We have asked them to observe for themselves the effects of our commonest remedies in minute doses on persons of a different character,—on the strongest they can find, on the least imaginative, who do not know what nerves are made for. We propose now to test attenuated remedies on persons of every degree of physical strength, from the giants (such as we *have* in these degenerate times) down to Barnum's last and least of the Lilliputians. Veterinary medicine brings the testimony of animals not likely to be deceived by *imaginary* relief from pain. Homœopathy has cured the violent febrile, inflammatory, and other dangerous diseases in every species of domesticated creature, from canary birds to the strongest draught horse or the swiftest Arabian. Mr. Moore gives us the testimony of the English oxen. We will try the buffalo and the mammoth as soon as we can find them. It is time the oxen should speak; they have not said a word for science or religion since they spoke to the Romans on the occasion mentioned by their first historian.

Miscellaneous Items.

HOMŒOPATHIC MEDICAL COLLEGES.

Western Homœopathic College, Cleveland, Ohio.

Our College has recently closed. We have had an unusually pleasant session. We have enrolled a class of sixty students. Our graduating class numbered twenty-eight. There were seven ladies in attendance on the lectures, two of whom graduated. The faculty have resolved to admit no more females to the degree of M.D.

The commencement exercises occured on Wednesday evening, Feb. 25, at the college building. Dr. E. G. Cook, of Fredonia, N.-Y., gave the literary address, and Prof. R. F. Humiston delivered the valedictory.

The large and intelligent audience assembled, gave frequent tokens of approbation to both gentlemen, and were much pleased and instructed by their eloquent efforts.

At the close of the interesting exercises, the faculty and students, with a number of invited guests, adjourned to the rooms of Mr. W. R. Mould, where a sumptuous repast was in waiting, &c., &c. (*Extract of Letter from Professor Wilson.*)

Hahnemann Medical College. Third Annual Commencement.

The Commencement exercises of the Hahnemann Medical College, at Bryan Hall, yesterday afternoon, were attended by a large number of citizens, and the practicing physicians of the Homœopathic School of Medicine. Appropriate music was furnished for the occasion by Vaas & Dean's Light Guard Band.

The opening prayer was made by the Rev. Mr. Brooks, of the Edwards Presbyterian Church.

Prof. A. E. Small, Dean of the faculty, made his annual report, in which he stated that during the very successful course of lectures, embracing a period of twenty weeks, thirty lectures had deen delivered weekly upon the various departments of physiology, anatomy and surgery; that forty-one students have attended the entire course, thirteen of whom have complied with all the requirements which entitle them to a graduating diploma.

The President, Dr. D. S. Smith, addressed the graduating class as follows:

Gentlemen: Academical degrees being instituted to the end that men imbued with learning and science, may be distinguished with a mark of honor, and not be called in question by others; to this end the Legislature of the State of Illinois, having granted ample power to our college; and you, gentlemen, having, upon examination, shown yourselves worthy of this honor, therefore, we, the President and Professors of the Hahnemann Medical College, do create and ordain each one of you Doctors in the science of medicine and surgery, and we do give, by virtue of this diploma, all the rights and privileges belonging to the degree of doctors in medicine here and elsewhere.

Seldom have we seen a class of graduates who gave more striking evidence of intelligence, sobriety, and honesty of purpose, than those who were upon this occasion made practitioners.

VALEDICTORY ADDRESS.—Prof. J. L. Kellogg, on behalf of the faculty, tendered to the graduating class their congratulations, and welcomed them to their ranks as co-workers to the arduous and self-denying labors of the true physician. He explained the relation existing between the instructors and the pupils, which, in this case, was brought to a close, and they are acknowledged, in rights, as equals with their instructors. Henceforth the graduates are presumed to be actuated by as noble and humane sentiments, and as capable of deciding for themselves, as to modes of curing diseases, as those whom the law appointed to direct their studies while they were passing through the period of their instructions. He alluded, in an appropriate manner, to the many obstacles the new practitioner must expect to encounter—the magnitude and importance of the interests intrusted to their care, assuring them that if they had a just conception of the importance of their mission, they would not fail, on many an occasion, "in fear and humanity to crave the wisdom of Heaven to direct them aright." * * * * * * The speaker alluded to the false education of the public mind on the subject of medicine—so perfectly perverted as to be unable to conceive how diseases can be removed without the agency of drug forces which would make a healthy individual sick. Considering that many are honest in their convictions, and that many of the ridiculous dogmas of the dark ages of the past are still venerated by them, the reformer should look with leniency upon these hallucinations. * * * * * * Prof. K. gave the class a concise and able dissertation upon the functions of the human system, the office of medical remedies, and the importance of the trust they have received. He concluded his adddress with the following eloquent and appropriate remarks:

"By conferring on each of you the degree of Doctors of Medicine, we certify to the world that you are qualified to fill that important position, and become endorsers for your fulfillment of the representation. Suffer us, then, as having a direct interest in you, to indicate what we may rightly claim as security for the pledge we thus make to the world; or, in other words, indicate some few of the cardinal traits of a true physician. Truthfulness is the fundamental principle of all that is noble in human character. Without this foundation, your desires for permanent success will be futile. An unreliable man is always without influence for good; an unreliable physician is more despicable, because occupying a position where truthfulness and candor are pre-eminently demanded. High moral tone of character is also indispensable. Of all classes of men, physicians most are called, by the practice of their profession, into the private and most retired sanctuaries of home. Your own good sense will characterize the depth of that guilt which would betray confidence reposed under such circumstances.

"The principal function of the physician is to heal the sick; but, gentlemen, your usefulness should not be confined within such narrow limits. Your sphere of observation is extensive. Your knowledge of human nature must become correspondingly enlarged, and your capabilities to instruct valuable. You should not suffer them to go to waste; but, with the blessing of health, you should also dispense light. "Do good and communicate" is a valuable injunction. True medical practice seeks no darkness to cover its operations; it spurns all chicanery, and courts the light. * * * * * * If you will seek the facts in the case, you will find that the best supporters and patrons of homœopathy are mainly individuals capable of considering and appreciating the principles upon which it is based; minds so enlightened as to spurn that bigotry which dissuades from investigation, and talks of the "lions in the way" of the by-paths of medicine. No paths are by-paths which are lighted by the lamp of truth; and wherever it shines, it is safe to enter and gather fruits.

"Finally, gentlemen, we urge you to be independent in thought and free in utterance; thus will you acquit yourselves like men, and the world will be advanced by the little or much which you may be able to add to the stock of its goodness or knowledge."

After music by the band, the audience was dismissed by a benediction by Rev. Mr. Brooks.

The anniversary dinner to the graduating class was given by the faculty at the Adams House, and as usual, was a very pleasant affair. The followers of Hahnemann were fully represented, and the Trustees of the College also participated in the festivities. Mine hosts of the Adams House acquitted themselves in a creditable manner. The graduates will long remember with pleasure the closing "ceremonies" of their college course. —*Chicago Tribune*, Friday, February 27, 1863.

Illinois State Homœopathic Medical Association.

The ninth annual meeting of this association will be held in the Hahnemann Medical College, Chicago, on the third Wednesday in May, 1863. It is confidently expected that this meeting will be more numerously attended than any which have preceded it. A movement is on foot to organize the profession from a number of the North-Western States into one body which shall convene yearly in the city of Chicago. This enterprise will doubtless be entered upon at the above-named time and place. Essays will be read and discussions held upon practical subjects by various members of the society, and others from abroad. A general attendance from all the Western States is solicited. L. Pratt, M.D., *Recording Secretary.*

Rock Creek, *Carroll Co., Ill.*, January 20th, 1863.

The Homœopathic Medical Society of Northern New-York

Held its annual meeting at the Mansion House, in Troy, on Wednesday, January 7th, 1863. The society was called to order by the President S. A. Cook, M.D. The minutes of the last meeting were read and approved. On motion, the third article (election of officers) was deferred till the arrival of members from the country. On motion, the Society resolved itself into a committee of the whole, in matters relating to practice, &c. Cases were presented for clinical examination, after which discussions followed which were both interesting and instructive.

Dr. Wolcott informed the Society of the death of Dr. S. G. Perkins, a former member, and first secretary of this Society. On motion, a committee was appointed to draft resolutions relative to his death.

The President appointed Drs. Wolcott, Cushing, and Searls, as a Committee, who presented the following resolutions:

Resolved, That this Association has heard with sadness, of the death of our late compeer, Dr. S. G. Perkins, while leading a charge of Union Cavalry upon the rebels in Virginia. While we mourn that our school has lost another bright intellect, yet, we rejoice that in his death, he proved himself a fearless soldier, and added another name to the many, who have fallen from the ranks of our profession, while in the discharge of duty in various capacities upon the battle-field.

Resolved, That we will cherish his memory as an ardent searcher after truth, and a zealous advocate of the doctrine of "*Similia Similibus Curantur.*"

Election of officers resulted as follows: *President*, B. F. Cornell, M.D., Fort Edward; *Vice-President*, S. J. Pearsall, M.D., Saratoga; *Secretary and Treasurer*, A. M. Cushing, M.D., Lansingburgh; *Censors*, Drs. R. Bloss, Billings, Campbell, Fuller, Carpenter, and Searls.

Commmittee to audit retiring Treasurer's account, Drs. Cornell, Carpenter, and Searls.

The afternoon was spent in reporting cases and interesting discussions.

Adjourned to meet at the Clarendon Hotel, Saratoga, on the first Wednesday of July next. A. M. CUSHING, M.D., Secretary.

Removal of Dr. E. M. Hale to Chicago.

BY the annexed announcement it will be seen that our enterprising and faithful colleague, Dr. Hale, has finally established himself in the Queen City of the Northwest. We are pleased with his removal. A man of his spirit ought to be where he has good room; and Chicago, with thousands of miles of lake navigation on one side, and thousands of miles of prairies and railroads on the other, is a proper centre for operations of any character and of any extent.

NOTICE TO PHYSICIANS.—Those physicians throughout the United States and Canadas, who have kindly volunteered to aid Dr. Ludlam and myself, in the compilation of homœopathic literature, upon which we are engaged, will confer a favor by sending such communications as are designed for me, to my address, "box 550," and oblige—E. M. HALE, M.D.

P. S.—We desire particularly, copies of, or, notices of rare homœopathic books, pamphlets, &c., published in this country.

Annual Report of the Inspectors, &c., of the Michigan State Prison. Lansing, 1862.

WE have before us the printed "report," which reflects credit on the management of that Institution. The report of the physician, however, is the portion which most interests us.

"It is now three years," says Dr. Suttle, "since the authorities of the Prison, taking the lead of all similar institutions in the United States, adopted homœopathy as the treatment in the Prison Hospital.

"A few facts from the Hospital Record, will show some of its points in the Prison. During the years 1857, 1858 and 1859, under allopathic treatment, there were 39 deaths; there were over 23,000 days' labor lost by sickness, and $1678 expended for hospital stores. The average number of convicts in prison during the three years was 435.

During the years 1860, 1861 and 1862, the average number of prisoners was 544, being 109 more than the preceding years, and yet there were only 20 deaths! There were less than 10,000 days' labor lost by sickness, and less than $500 expended for hospital stores.

"The amount saved to the State during these three years can be readily estimated, but the value of lives saved, and the amount of suffering alleviated, are inestimable.

The tabular statement of the transactions of the Hospital, is too extensive to be copied, but a few facts are significant.

During the year 1862 there were eight cases of small-pox, two of which were of the confluent type; (one of these died). There were also twenty-four cases of varioloid, many of which were attended with severe constitutional derangement, and almost as fully developed as the cases of distinct small-pox (no deaths). There were thirty-three cases of measles, all of which terminated favorably.

"On the 7th of July, we had 44 cases of cholera morbus, of the most malignant kind, and succeeded in curing all of them in a few hours with the infinitesimal doses, and without resorting to sinapisms, or the heroic treatment.

The conclusions arrived at from the report of Dr. Tuttle, are very favorable, and should impel the authorities of other institutions to adopt a treatment, which is a saving of both expense and life. HALE.

Local Treatment of Ozœna and Chronic Catarrh.

WE condense the following notes from some cases recently communicated by Dr. Otto Fulgraff.

For years I have seen few cases of obstinate ozœna and nasitis cured by general treatment alone; and when local applications are made, the articles employed have to act upon diseased surfaces, which are covered with a vicious secretion, which prevents common remedies from acting favorably, as well as keeps up an irritation of its own specific character, thus intensifying and perpetuating the disease. Having continually seen indications, according to our Materia Medica, for various remedies, as Kreosote, Arsenic, Hepar, Aurum, &c.; but having seen and read of few cases cured by them, I have thought there must be some way to reach, in a more direct manner, the disease in its seat, remove the deleterious secretions from the surface, and apply the remedies exactly where they are needed. On observing some small tubes at a glass blower's establishment, I thought of trying some curved tubes of small size through which medicines might be directed exactly where they were needed. I therefore, had some small tubes bent at different angles to suit different points of disease. Some are bent at a *right* angle, some an *obtuse* angle, some an *acute* angle; for some purposes they may be flattened or spread out at the end. Through one or other of these tubes, I found that medicines could be directed, in powder or solution, to any desired point, whether behind the velum palati, to any portion of the surface of the nostrils, the tonsils, the soft palate, the pharynx, the larynx, even the glottis and trachea as far as its bifurcation.

The remedy indicated may be used of any required strength, and applied so directly to the exact seat of the disease, that their influence is immediately felt, at the same time that their general influence on the system at large will be sure to follow their persistent use. Hence patients treated in this manner have recovered more speedily than those treated by general remedies alone, or by the medicated vapor inhalations. It may be tried in every stage of chronic catarrh, or ozœna, in follicular irritation of the pharynx, larynx, or trachea, and other obstinate affections of the adjoining parts. The remedies that have been used with most prompt and satisfactory results are: Sanguinaria, Phosphorus, Iodine, Kreosote, Nitrate of Silver, Iodide of Arsenic, &c.

On the Temperature of the Body.

[From Wagner's "Allgemeine Pathologie."]

THE normal temperature of a sound person oscillates between very narrow limits—namely between 29.6* and 29.8 R. (37.0 and 37.3 C) It varies little in different mammalia, rising some in birds. It is the same among men of all zones,—the same in winter as in summer.

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* 29.33° Reaumur is equal to 98° Fahrenheit.—ED.

In diseases we have chiefly to consider the absolute heights in favorable and mortal cases, the extreme quickness of the rise, the duration of the change, and its consequences for the body. The oscillations between which life is possible range between 28 and 33.4° R. (35 and 41.8° C.)

Falling of temperature to 27 (33.75), even to 26 (32.5) appear in the stadium algidum of cholera; or else only after higher temperatures have prevailed, as to 27 (33.7) in pyæmia and puerperal fever; to 28.5 (35.6) in pneumonia, erysipelas.

Those suffering with marasmus, anæmia, icterus, and tuberculosis enjoy normal temperature during febrile times; and if the temperature falls under that of the room, the difference is only a few decimals. Heart disease with strong cyanosis also depresses the temperature to 28.2, except when connected with inflammatory complications.

The risings of the temperature above the room corresponds generally to the frequency of the pulse, and the development of other febrile symptoms; but we have a temperature of 32–32.5 (40–40.6) in abdominal typhus, with a pulse of 80.

The highest degree of fever with which life is possible is 33.4* (41.75). Such temperatures are found in diseases with severe attacks of chilliness, and which are more or less mortal. 33.2 in very acute endocarditis, with embolic inflammation; 33.2 in pyæmia, puerperal fever, pylephlebitis; 33.1 in pneumonia, although usually only between 31 and 32; in variola during stadio eruptionis it rises often to 33. 32.8 is the limit hitherto observed for erysipelas; 32.6 for urticaria; 32 for angina tonsillaris; in typhus abdominalis we find 33 as the utmost limit, where life can be saved. In scarlatina it rose to 32.9; and in measles between 31.5 and 32.3. In syphilitic exanthemata the temperature of the skin may rise to 31 before and during the eruption; in some cases of scorbutic with hectic fever in the evening to 32.5; in acute and chronic tuberculosis 32.6; in leucæmia 31.6; in carcinoma 30.5. In all other feverish processes the temperature hardly ever rises above 32°, as in inflammation of the joints, of the serous and mucous membranes. Especially the following numbers are correct: for rheumatismus acutus articulorum 31–32.6; also for pleuritis and peritonitis, except when pyæmia appears. In meningitis basilaris tuberculosa, may it appear primarily or secondarily in any stage of tuberculosis, the temperature oscillates between 30.5 to 31.9. In primary pericarditis, which is seldom observed, the temperature may rise in the beginning to 31; but as soon as a sero-fibrinous or hæmorrhagic exudation is formed, the temperature gets either normal or sinks down even to 25.5. A pure bronchitis, laryngitis, or coryza raises the temperature at most to 31; whereas in influenza the temperature rises even to 32. Gastro-enteritis, typhlitis, and colitis cause in some cases risings even to 32 and over; but the usual gradations are 31 to 31.5. The same is the case with gonorrhœa, running its course without any fever usually. In leucorrhœa the temperature oscillates between 30.5 and 31. Astonishing are the differences during menstrual difficulties, where, without any symptom of peritonitis, the thermometer rises to 32 and over.

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* 107 5° Fahrenheit.

In recent apoplectic attacks the thermometer usually sinks under that of the room; in the next few days a small rise takes place, and regularly up to 31.8, if the patient dies. In pure neuroses the temperature of the skin does not increase; yet there will be hardly a case of lead colic where we could not find temperature of 30.6; or whooping-cough, where it does not ascend to 30; but then we have here frequently complications, in eht first case with catarrhus ventriculi, in the second with bronchitis.

Epilepsy, hysterics, alcohol delirium without any other affections, have no influence on the temperature of the body.

A larger rise takes place, if the fever ends in death. The highest temperature recorded, is 35° (43, 8) in a case of exquisite abdominal typhus, which ended in death on the eleventh day, and was complicated with recent miliary tuberculoses. Wunderlich observed a case of spontaneous tetanus, where in death the temperature rose to 35, 8° (44, 75 l.) and kept on rising half a degree more fifty-five minutes after the moment of death. Temperatures up to 34° are frequent in the first 2—3 weeks of typhus, whereas at the later stage hardly any or only a moderate rise is observed. In scarlatina, 34.6, in pyæmia, 34.4, in icterus gravis, 34 and 33.8, has been observed during death. Remarkable are two cases of epilepsy with normal temperature during life, rising in death to 33.6, and 34, without showing any coarser anatomical lesions except slight dullness of the pia mater.

We may generally say, that in all diseases with high fever, the temperature rises towards death. Thus a rise up to 33.6, (42.C) appears in pneumonia, endocarditis, meningitis suppurativa, whereas we find a moderate fall towards the end of a meningitis tuberculosa, exactly in opposition to the great rise in the frequency of the pulse. Patients, dying from hæmorrhage, as typhoid, scorbutic ones, and the tuberculous, even if they had no bleeding shortly before death, all show in death a temperature below the normal. Patients suffering with disease of the heart die with a temperature of 28.2 to 28.5.

Very remarkable, in opposition to the usual equality of the normal temperature in health, is the celerity, with which the temperature changes during sickness. In intermittents a rise of 4°R. (5°C.) was noted in two or three hours, returning slowly, in eight to ten hours to its normal state. The greatest difference of the curve was observed in a puerpural fever, where the temperature fell from the evening to the next morning, from 33.2 to 27.2, that is 6°R. in twelve hours.

During the chill in fever, the temperature rises at least one degree, and it may be put down as an axiom, that the feverish patient will suffer a chill when the temperature rises one or two degrees in a short time. The chill accompanies the rise of the temperature, the quicker the temperature rose in the beginning, and the chill is the severer, the larger the absolute height of the temperature is and the more sensitive the patient.

A temperature of 32–33 (40–41.25°), steadily kept up, leads in a few weeks to death. An evening temperature of the same degree, accompanied by large remissions in the morning, may be endured during several months.

At any rate the patient will emaciate, let the anatomical lesions, which produced the fever, arise from whatever cause. Small attacks of fever, appearing only in the afternoon or evening, consume little, or only after a great while. How the substance of the body gets consumed, and in which way this is done in different fevers, are questions not settled yet. Emaciation teaches the consumption of the fat. But that also nitrogenic substances are consumed in larger quantities, is proved by the urine during fevers showing more urea. This is proved for typhus, pneumonia, and scarlatina and intermittents; but we still want trials for the pure hectic fevers, whose perspirations contain, according to Funke, a great deal of urea.

Homœopathic Dispensaries. Eighth Annual Report of the Bond-Street Dispensary, for the year ending February 1st, 1863. By Otto Fulgraff, M.D., Founder and Manager of the Dispensary; assisted by Drs. J. R. Andrews, George L. Freeman, F. B. Mandeville, S. W. Taylor, Virgil Thompson, A. M. Woodward, W. B. Hallock, J. P. Ermentraut. Incorporated February 28th, 1862; No. 59 Bond-street. Open daily, from 2½ to 4½, P. M. (Sundays excepted). *Free to the poor.*

The indefatiguable Founder and Manager of the Bond-Street Dispensary again presents to its patrons a very gratifying report of the successful operation of that Institution during another year. Having done so much to relieve the sufferings of the sick, who were unable to pay for the medical aid they needed; so much to introduce the cause of homœopathy to the notice of the people, who had previously only heard of it through the misrepresentations of its enemies; so much to demonstrate to all observers the superiority of this practice over any other,—the Bond-Street Dispensary is now fully established in the estimation and confidence of the public. The following extract from the Report presents a satisfactory summary of its claims and resources:

> The increase in the number of patients during the last year, as will be seen, has been very great: 8,159 cases treated, 24,389 prescriptions given, against 5,130 cases and 13,660 prescriptions the year previous. This is, no doubt, due in a measure to the extended facilities given to the suffering poor, by the appointment, last spring, of two resident physicians, who have attended to a large number of patients out of the *regular* hours. As for the success of our treatment, we leave the public to judge, by referring to the tabular statement. We also have to record the incorporation of our Institution, which took place February 28th 1862; and the appropriation, by the Common Council, of one thousand dollars, with other donations received, enabling us to supply another want, felt for years,—the appointment of a visiting physician, to attend to the suffering poor, prostrate with disease, at their own residences, which has been done to the fullest extent in our power; for, during the past year, over 2,400 visits have been made, for which a small compensation of $400 has been given. The resident physicians have not only attended at the Dispensary, but have made many out-door visits, in order to lighten the labor of the regular visiting physician, who was not able to attend to all who required his services. A great amount of military and other surgery has been successfully performed by Dr. J. R. Andrews. Dental surgery has had its equal share of attention.

Lepra Anæsthetica.

Continued from page 480 of the February Number.

SOME cases of this disease, generally from the tropical parts of America, have been treated by physicians of New-York. One of these is described by Dr. H. M. Smith in the *American Homœopathic Review*, Nov., 1862:

W. T., aged twenty-four, born in Demarara, of English parents, was one of twenty children. Was vaccinated when a few months old; instead of the true vaccine pustule, small black sores appeared, which discharged thick black pus. From this beginning the leprous affection extended throughout the system; resisted all treatment—at home, in Barbadoes, and England. He now presents the following appearance: "The thumb and fingers of the right hand are gone from the metacarpo-phalangeal articulation. On the left hand the thumb is missing from the metacarpo-phalangeal articulation, and all the phalanges of the fifth finger are gone. All that remains is about half of the first phalanx of the index finger, one-third of the first phalanx of the fourth finger, and the first phalanx of the third finger. He has lost the toes of both feet, from the metatarsal phalangeal articulation, with the exception of the first phalanx of the left fifth toe, which was then denuded and coming off. On the hands are a number of hard red pustules, from one-eighth to three-eighths of an inch in diameter. With this exception the skin appears smooth and dry, and over the three remaining joints of the left hand are deep fissures; where the fingers have been the skin has healed, as over a stump after amputation. There is no sensibility of the arms below the elbow, nor has there been for years; the legs are likewise insensible from the knees down. The feet differ in appearance from the hands: instead of the skin being dry and cracked, it is soft and moist, and has disappeared on the soles—leaving ulcers on each foot its entire breadth. Otherwise than this disease of the hands and feet, he says his health is good. In cold damp weather he is troubled with a cough, but this is always relieved by homœopathic medicine. The patient is intelligent, and has received a common education."

The concentration of the constitutional affection upon the extremities seemed to be effected by a bruise in the palm of the right hand; a swelling was observed the next morning, which was lanced, and discharged freely. From this time he had no use of his hand; the fingers became flexed, and he was unable to open them except by taking the fingers of the other hand. After coming to this country, "a fissure in the skin was observed on the distal end of the index finger of the right hand; the nail came out, and the fissure spread, making 'four slits,' as far as the last joint. The phalanx became circumscribed with dry skin, which was poulticed with bread and water, and peeled off until the bone was denuded, and was knocked or fell off. In this way the third phalanges of all the fingers of the right hand were lost. The fifth finger of the left hand was next affected, the disease extending no further than the second joint. The disease then returned to the right hand, this time extending only half the length of the second phalanges;—next the thumb of the left hand became affected, and healed. The right foot was attacked next; what was supposed to be a corn appeared on the sole of the foot, between the first and second toe,—a piece of bone came out, and the foot healed."

After further operations on the fingers of both hands, the disease returned to the foot previously diseased; commencing in the joints of the toes, which "sloughed away, leaving the ends hanging. The vessels were seen 'like strings,' which soon disappeared, when the hanging portions fell off. All sensation left the foot soon after the sore disappeared."

Dr. J. R. Andrews, of New-Jersey, who treated this case for some time, says of him, that "under the use of Arsenic, Hepar, Conium, Silicea, Merc.-iod., Rhus, Lachesis, Nitric-acid, Sulphur, Kali, &c., the parts assumed a more healthy appearance, and gradually improved, and the parts entirely healed."

It is said, that this disease is common in Demarara, but confined to the black population. In Africa it is well known and regarded as contagious. A missionary, who visited an island to which the lepers are banished, describes their efforts to support themselves by laboring with their mutilated hands. One man, who had hands, but had lost his feet, was sowing barley on the field, being borne on the shoulders of a comrade who was so fortunate as to retain his feet, though his hands had both fallen off; between them the work was performed.

Blood Baths.—There is a dark tradition, according to Pliny, of the ancient Egyptian kings bathing in human blood to cure leprosy. There is also a similar story of the Emperor Constantine; but it seems he was restrained from the experiment by a vision, and was afterwards otherwise miraculously cured. It is at least certain, that in ancient times great virtues were attributed to the blood of children and innocent persons in the cure of leprosy. The remoter traces of the belief in the expiatory or healing properties of pure blood ramify into the most ancient periods reached by tradition or history. The cure of this particular disease by the blood of animals in association with certain symbolical ceremonies is mentioned by Moses.

During the middle ages the belief of the curative powers of the blood baths was universal, though the cures were remarkably rare—a fact which is thus accounted for by the historians: It was in some way ascertained, that no blood would prove efficacious but that of children and pure virgins, who freely and voluntarily offered themselves for the purpose of saving the life of a beloved sufferer. Such a case is recorded in the poetical history of the Suabian Knight, "Poor Henry," which is said to be one of the finest poems of the thirteenth century. The story of Amicus and Amelius is another, based upon the general belief of the same superstition in those times. Louis XI., of France, after a life of cruelty and crime, endeavored to avert his approaching death by the use of the blood of children. The incident was employed by a poet to exalt the horrors of his tremendous version of the tradition of Faust. Sprengel says, the story was true, and he also describes the blood baths as actually employed; though the fact was never settled on unquestionable authority.

Arsenic.—Dr. Hunt, of Margate (England), says he has employed it for thirty years in lepra, eczema, psoriasis, acne punctata, and impetigo, and has never failed in any one of these diseases where the remedy was fairly tried. His rules for using it are: 1. Begin the use of the Arsenic after the active cutaneous inflammation has subsided. 2. Dilute it with the food and drink; give it when the stomach is full—not empty. 3. Give three or four doses daily with the greatest regularity,—four or five drops to begin with, equal to fifteen drops per day. Still this dose is liable to produce medicinal aggravation: conjunctivitis commencing, warns to stop. But when the minimum dose is discovered, persevere with this for many months, in cases that have lasted for years. The advance of the disease, when the remedy is intermitted, shows the power of the remedy over it. Abstain from all external applications. All the advantage of this course is more completely gained by giving the attenuated preparations of Arsenic. The third trituration may be long continued if given in a large quantity of water.

In lepra anæsthetica, or elephantiasis Græcorum, Arsenic has been used for centuries in India. The celebrated "Tanjore pill," which is considered by the natives of India as a specific for this form of lepra, is thus prepared: Take 105 grains of Arsenious-acid, and six times that quantity of pepper; make into small pills, and take one morning and evening. This is also regarded as specific for the bites of venomous serpents. In frambœsia, or yaws, of the West Indies, Arsenic has also succeeded in many cases. In both of these diseases much benefit has been obtained by washing the affected parts with pure acetic or pyroligneous acid. In using any local treatment internal remedies should always be given.

Intestinal Obstruction.

1. Any mechanical obstruction of the bowel causes an accumulation of its contents above the obstructed part; and this accumulation provokes such a peristaltic action as insures their mixture, and, strictly speaking, their reflux.

2. Increasing distension finally brings about paralysis and inflammation of the intestine, ending in the collapse and death of the patient.

3. The symptoms of the several forms of obstruction (referring more generally to the nature of the obstacle and its situation) usually permit an accurate diagnosis, even in the earliest stages of any given case. It is therefore desirable to inculcate the importance of an early and accurate diagnosis, which will have an important bearing on the treatment. *Mechanical obstruction* must be clearly distinguished from *enteritis.*

PROGNOSIS.—The cases that *recover* are almost invariably the *protracted* ones; intus-susceptions, which end by the expulsion of the affected part or segment of the intestine, have a duration of twice to thrice as long as that of the fatal cases. In those cases which finally recover, it is only in the second or third, or even the fourth week that I have witnessed that remission of symptoms which announces relief of the obstruction, and which often precedes by a day or two the first healthy evacuation. (Brinton, Croonian Lecture.)

MEDICAL TREATMENT. *General Principles.*—To protract the duration of life by every means in our power. If we can lessen the rapidity and increase the duration of the malady, we multiply the chances of recovery. The constriction or inflammation may possibly end of itself by resolution, or retraction of the intusception, by efforts of the *vis medicatrix naturæ.* A gradual accumulation of fluid leaking into the stricture forms a kind of wedge there, and transmitting equally in all directions whatever force it may receive, it allows even the most distant wave of peristaltic contraction, applied at a distance, to tell with undiminished energy as an agent of dilatation at this point.

CHIEF INDICATIONS OF TREATMENT.—1. To prevent distension; 2. To assuage pain; 3. To mitigate extensive peristalsis; 4. To support the patient's strength during what is necessarily an exhausting and often a long illness.

1. To prevent distension, reduce the food and drink in every available way; give only small and frequent sips of cool, even iced liquids; give the food in the shape of beef-tea, soups, &c.; and, if these articles disagree or excite vomiting, diminish the doses, and try other articles: soda water in small quantities, wine or brandy in some cases.

2. To lessen the pain, Opium has long been the only reliance; and in many instances it has been used to very great extent, far exceeding what could be usually borne. Belladonna, though less effectual than Opium in easing pain, has a specific power in this disease that must not be passed lightly over. Tobacco has a specific power in an antipathic way to produce relaxation of the constricted portion of the bowel; but in the dose it requires it is very dangerous. Whatever be the means we resort to, we have before us a task of great difficulty; and it is only, as Mr. Brinton says: "By close and even unconscious reasoning, by strict scrutiny, by deep insight, and by a truthful and teachable habit of mind, that the treatment of diseases of such severity must be wrought out."

3. *Enemata.*—They may effectually support the patient's strength, and by their mechanical action they may sometimes remove the obstruction. The water they contain, when absorbed, is important, both for the purposes of nutrition, and lessening the fever and inflammation; milk, broths, or gruels may be employed in this way, and may long maintain life. They may act also, by distending the bowel on the lower side of the obstructed point, and thus effect such a change in the position or arrangement of its parietes as may relieve the impacted or intuscepted part. They aid also by their gentle warmth, and the water which may be absorbed in the immediate vicinity of the point of disease. It is chiefly in their earlier stage that they are likely to be beneficial. They should be injected slowly and gradually, and with considerable force, though with caution,—with such care, that the tension which an additional ounce may cause shall subside before we attempt to introduce more. The patient should be willing to bear some pain, and the operator to give the least he can.

Purgatives in such a case can do no good. They cannot remove the obstructions. The enormously distended state of the intestines clearly indicates the folly of attempting to force a passage by purgatives. This is the decided opinion of the highest living authorities. Long before the advanced stage of obstruction at which purgatives could do no good, long before the fæcal vomiting which usually precedes it for some time, physical examination of the abdomen shows an accumulation of liquid, and the creeping flatulent peristalsis, beneath its perhaps still smooth, relaxed, and flattened walls. This condition shows, not indeed that purgatives are useless, for they have sometimes given relief; but rather that nature herself is preparing, within the obstructed bowels, the best of all purgatives; a mass admirably adapted by its quantity and quality, and especially by its consistence, to do whatever any aperient can towards opening a passage. And if, as we have concluded, there is any danger of even this stimulus being too great; if its distending the bowel with such rapidity as to paralyse its muscular coats, or to provoke an excessive and exhaustive peristalsis, or to excite a diffuse inflammation which so aggravates and distorts the local phenomena as to destroy all chances of their restoring the permeability of the obstructed canal. Withhold purgatives in these cases, because they are not merely useless but positively hurtful, not only in the late, but even in the early stage of the obstruction.

[To be continued.]

Materia Medica.

Pathogenetic Characteristics of Drugs. By J. S. Douglas, M.D., of Milwaukie, Wisc.

RHATANIA.

SMALL red or white pimples, which do not suppurate, especially between the shoulders and in the lumbar region, and remaining a long time.

Pain in the eyes as if between screws, and as if they could not be moved. Sensation as of a skin before the eyes. White spot before the eyes, preventing sight.

Burning vesicles in the vermillion border of the lips. (See Phos.-ac.) Fungous softening of the gums, which bleed easily and cause a sour taste, as of blood.

Crampy contraction of the throat, arresting the utterance of words.

Pulling and cold feeling at the umbilical region.

RHEUM.

Tension in the skin of the face. The frontal muscles incline to contract into wrinkles.

Papescent, sour smelling stool.

Yellow, bitter milk in nursing females.

The child is pale. She grumbles in her sleep, as if she were quarrelling, and has convulsive drawing in the fingers.

He is delirious in his evening sleep, and walks about in his bed-room with his eyes closed, without talking, and feels very hot.

RHODODENDRON.

The tongue has a greenish coating, with bitter taste in the mouth. (Greenish-yellow coating: Calc.-caust., Plumb.-acet.)

The testes are somewhat drawn up, swollen, and painful. The testes, especially the epididymus, are intensely painful to the touch. Violent, painful drawing in the hard, somewhat painful testes, extending as far as the abdomen and thighs, especially on the right side. Cramping pain in the testes. Violent stitching in the right testicle, as if contused violently, while sitting; going off on walking, but returning on sitting. Drawing-sticking pain in the right testicle and spermatic cord, disappearing on motion. Sometimes the pain was pricking, commencing in the right testicle, and spreading in zig-zag along the perinæum towards the anus, lasting some seconds, and being so violent that it arrested the breathing. The swelling of the testicle which had been painless heretofore, enlarged to the size of a hen's egg, especially the left, with stitching and tearing pains in both, which were short, but violent. (A homœopathic aggravation.)

Coldness of the three middle fingers of the right hand. It pre-eminently produces a great variety of rheumatic and neuralgic pains, especially in the lower extremities.

RHUS-RADICANS.

The tongue feels as if it were burned or scalded. (In common with Sep., Ars., Coloc., Mag.-mur., Phos., Puls., Ig.)

Loose, reddish-brown coat on the tongue in the morning. Though not exclusive, yet pre-eminent effect on the anterior part of the tongue, as redness, smarting, &c.

Red, inflamed, tuberculoid elevations on the skin; or large pimples, tough, deep-seated, and irritable to the touch,—the smaller ones disappearing without suppurating; the larger ones suppurating slowly and imperfectly. Tubercular pimples, large and tough, their bases deeply seated in the skin, their prominent parts highly sensitive to the touch. The eruptions are generally much larger and much less superficial than itch vesicles, and never discharge unless broken by external force. A sort of dry itch, that is hard: wart. shaped blotches, that crowd upon each other, and form groups of elevations.

RHUS-TOXICODENDRON.

The character of the eruptions and the fever produced by Rhus are peculiar.

Tractile feeling of the scalp, as though one was pulled by the hair. Disfigured and distorted face, the left side appearing contracted, and the right elongated.

Black, inflamed, itching pustules covering the whole body.

Yellowish saliva.

RUTA-GRAVEOLENS.

It is the distinguishing and perhaps peculiar feature of Ruta, that it produces in an eminent degree pains of a pressive and bruised character in the muscles, and especially in the periosteum and bones.

Many drugs produce pain in the back and limbs, apparently in the periosteum or bones; but these pains from other drugs seem not to be directly upon the periosteum or bones, but indirectly through the spinal column and nervous system. The pains are sympathetic, are attended by different trains of concomitant symptoms, and are of quite a different pathological character. But the pains of Ruta seem to be the direct effect of the drug upon the periosteum and bones. Thus, the pain of the os-coccygis as if bruised, is not a sympathetic pain, but a direct, idiopathic affection of the part itself; and so of other bones. A local application of Ruta in many of these affections proves specific.

SABADILLA.

Chilliness in the evening; when in bed he is seized with a violent chill and shaking; an hour after he is alternately hot and cold for half an hour; afterwards he feels oppressed, as by sultry weather, and he sweats so profusely that he is obliged to change his shirt—though that makes him feel chilly. (This is similar in kind—though perhaps more intense in degree—to the train of symptoms I have repeatedly experienced in proving Gelseminum.) .

Febrile Symptoms.—He feels sick, anxious, starts easily; his breath is short and hot; he trembles; there is orgasm of the blood. Irresistible desire to sleep, with yawning. Icy cold shuddering, without shaking. Constant nausea. Intense pain in all the bones, especially the joints, as if the anterior of the bones were scraped and cut with a sharp knife, especially in the right arm. (This is an excellent picture of some forms of intermittent and other bilious fevers.)

SABINA.

Sanguineous and greasy taste in the mouth; the saliva reddish.

Visible swelling of the dorsum of the penis, not far from the glans,—the skin over it being movable; the swelling feels like cartilage, is flat towards the median line, having a sharp, pad-shaped border, is painless even when pressed upon; it becomes harder during an erection, is felt and seen more distinctly, and a peculiar, dull, tensive sensation is perceived in it at that time for eight weeks.

Violent stinging-itching of the glans. The frenulum is swollen and too rigid. Painfulness of the prepuce,—he is not able to draw it back. Dark redness of the glans.

SAMBUCUS.

Periodical delirium: sees frightful things on the wall. Suffocating paroxysm, like asthma millari, (on waking from slumber with the eyes and mouth half open, wheezing in the chest, bluish bloatedness of the face and hands, heat without thirst, and weeping when the attack sets in), and stitches in the left side of the chest.

Febrile Symptoms.—The feet are icy cold, the rest of the body being naturally warm. Burning sensation in the face,—the body being moderately warm, and the feet icy cold, without thirst. Intolerably dry heat all over the body, with dread of uncovering himself.

SANGUINARIA.

Peculiar headaches.

SASSAPARILLA.

Intolerable stench about the genital organs.

SECALE.

Hepatitis terminating in gangrene. Great feeling of coldness in the back and abdomen.—Putrid, fœtid, colliquative diarrhœa.

Sudden striking change of features, with deep, sunken eye-balls, surrounded with blue margins. Constant nausea and vomiting after taking the least food. Frequent diarrhœa, with watery, slimy evacuations. Shrivelled skin, which feels cool to the hand. Inexpressible feeling of burning and anxiety in the pit of the stomach. Hoarse, hollow voice. Suppression of urine. Cramp in the calves. Paralysis of the upper extremities. Scarcely perceptible pulse; and unquenchable thirst.

Violent drawing in the spermatic cord, so that the testicles appeared to be drawn up to the inguinal ring.—Congestion of blood to the uterus. Excessive uterine contractions, so that the uterus seemed to burst.

Slow breathing: thirteen respirations in the minute. Spasm of the pleura, with suffocative catarrh, speechlessness, and subsultus tendinum.

The limbs become pale, cold, and shrivelled, as if they had been lying in water for a long time. Gangrene of the limbs,—the limbs becoming suddenly cold and lead-colored, and losing all sensibility.

The skin is dry and brittle. The skin all over looks lead-colored,—the parts becoming shrivelled and insensible, and not emitting a drop of blood on being cut into. Burning of the skin, as if a spark of fire had fallen on it. Large ecchymosis. Blood-blisters of the extremities, becoming gangrenous. Black, suppurating blisters.

" *The Mamillarium—the most complete apparatus for Excoriated, Tender, and Retracted Nipples.*"

THIS simple and ingenious apparatus, devised by M. A. Richter, M.D., of Brooklyn, will be found to fulfil satisfactorily the objects contemplated by the inventor. The following are its claims to the attention of the profession: "The Mamillarium recommends itself both scientifically and practically, by its healing quality, perfect cleanness, great neatness, and excellent fitness for all kinds of sore and incomplete nipples, decidedly better than anything used for this purpose at present in America or Europe. It should at once supersede the metallic or common elastic expedients, especially those impregnated with sulphuric acid."

INDEX TO VOLUME XI.

PAGE.
Abscess of the Liver, Case of..... 486
Act to Incorporate the Hom. Medical Society of New-York 142
Adjuvantia in Homœopathy...... 581
Ague, Brass-Founders........... 122
Air, Microscopic Examination of.. 595
Albuminuria in Eclampsia....... 600
Alcoholic Drinks a Cause of Insanity 519
Altschul's Theory of Homœopathy, 563
American Homœopathic Review.. 155
Ammonia-Carb. in Puerperal Convulsions 601
Analysis, Spectral 114
Analogues, Remedial, Dr. Hale... 208
Anatomical Prizes, Dr. Helmuth.. 319
Anatomy of the Hard Palate, Dr. Helmuth ......,............... 101
Antidotes...................... 580
Aphonia, Chronic, Dr. Ludlam... 30
Arsenic, Poisoning by........... 317
Ascites, Case by Dr. Wetherell... 429
Asylum (Friend's) for the Insane.. 125
Atmospheric Diffusion of Malaria. 370
Atomic Doses, Therapeutic Action of, Dr. Walker 455
Atrophied Kidney, by Dr. Marcy. 196
Australia, Homœopathy in....... 456
Balloon, Highest Flight of a..... 470
Balsam Copaiva 454
Bayes, Dr. Wm., On Medical Trades-Unions 612
Bedford, Dr. G. S., Principles and Practice of Obstetrics 600
Belladonna Antagonistic to Opium, 120
Black Tongue................. 587
Blood, Circulation of, Dr. O. A. Woodbury 438
Bloodletting.................. 317
Body and Mind in Disease... 589, 593
Bœck, Dr., On Syphilization..... 548
Bond-Street Dispensary 621
Bowels, Obstruction of.......... 524
Brain, Diseases of, in Relation to Insanity, Dr. Hunt.. 321, 512
“ Softening of, and its Treatment, Dr. Hale 481
Braithwaite's Retrospect of Medicine and Surgery 132
Brass-Founder's Ague........... 122
Bretonneau, M. 313
Bright's Disease of the Kidney, Dr. Marcy, Third Stage........... 196
British Workman's Family Guide to Homœopathic Treatment.... 613

PAGE.
Bunson, Discoveries by.......... 114
Carbonic-Acid in Obstinate Ulcers, 315
Cases from German Journals. 318, 465
Cases from Practice, Dr. Douglas.. 107
“ “ Dr. A. Leon........ 110
“ “ Dr. John C. Morgan, 111
Catarrh, Chronic 618
Cattle, Pleuro-Pneumonia in...... 313
Celandine in Neuralgia.......... 160
Central Homœopathic Dispensary, New-York 155
Cerebro-Spinal Meningitis........ 582
Chelidonium-majus in Neuralgia.. 160
Children, Syphilization in........ 548
Cholerine, Congestive Form...... 586
Chronic Desquamative Nephritis, Dr. Marcy 1
Chronic Desquamative Nephritis, Advanced Stage of, Dr. Marcy............... 196
“ Gastritis, Dr. Ludlam ... 30
Civilization, its Influence on Insanity 514
Clavicle, Resection of the, Dr. Franklin..................... 256
Clinical Lecture, by Dr. Ludlam.. 30
“ Contributions, Dr. E. A. Guilbert...... 422
“ “ by Dr. Douglas.. 107
“ “ Dr. Leon 110
Common Sense of Homœopathy, Dr. Talbot 458
Cod Liver Oil. 455
Colton, Dr. D. A., On Diphtheria, 231
Congestive Fever.............. 584
Constitution and By-Laws of the Homœopathic Medical Society of New-York 142
Conservative Surgery 450
Consumption, Dr. Hunt 58, 170
Contagion of Puerperal Fever, Plague, &c. 504
Cook, Dr., of the Coral Islands... 312
Criminal Insane 123
Davies, Dr. J., On Diphtheria.... 94
Dead-House of Vienna Hospital.. 314
Death by Freezing.............. 447
Derangements of the Human Mind in their Relations to Physical Disease, Dr. Hunt 321, 512
Desquamative Nephritis, Dr. Marcy, 1
“ “ Chronic, Advanced Stage, Dr. Marcy, 196
Diarrhœa and Dysentery, by Dr. Wells. Review.............. 610

PAGE.
Dietetics, Physiological, Dr. Ludlam ... 238
Dilutions, Power of ... 572
Diphtheria, by Dr. J. Davies ... 94
" Dr. Helmuth, Notice of, 127
" Treatment, by Dr. Williamson ... 168
" by Colton ... 231
" Perchloride of Iron in, 316
" Clinical Lectures on, Dr. Ludlam ... 607
Disinfectants ... 312
Dispensary, Central Homœopathic, 155
" Bond-Street ... 621
Doses, Different Views on ... 473
" Theory of the Effects of Small ... 572
Douglas, Dr J. S., Pathogenetic Characteristics of Drugs ... 156, 626
Douglas, Dr. J. S., Cases from Practice ... 107
Drug Proving, Legality of Recognized ... 629
Drugs, Pathogenetic Properties of Dr. Douglas ... 156, 626
Dunham, Dr. C., Homœopathy the Science of Therapeutics ... 597
Duration of the Action of Medicines, 577
Dynamization ... 572
Dysentery, Dr. P. P. Wells on ... 610
Eclampsia, Influence of Uræmic Poison on, Dr. Bedford ... 610
Eczema ... 125
Effluvia of Animal Origin, Malaria, Dr. Lazarus ... 498
Endemics and Epidemics of the West ... 582
Error, Editorial, Corrected ... 472
Erysipelas, Epidemic ... 587
Escallier, Dr., On the Hæmorrhoidal Malady ... 558
Euphorbia-Corrolata, Pathogenesis and Therapeutics of, Dr. Hale .. 49
Ethical Impediments to the Progress of Homœopathy ... 141
Eye-Brows, Neuralgia of the, Chelidonium ... 160
Filiaria, Guinea Worm ... 316
Food and Medicine, Distinction between, Dr. Ludlam ... 238
Franklin, Dr. E. C., Resection of the Clavicle ... 256
Friend's Asylum for the Insane ... 125
Frost-Bites, Death by Freezing ... 447
Fulgraff, Dr. O., Report of Bond-Street Dispensary ... 621
" On Ozœna and Chronic Catarrh ... 618
Garibaldi, Diagnosis of his Wound by M. Nelaton ... 595

PAGE.
Gastritis, Chronic, Dr. Ludlam ... 30
Gastro-Enteritis, Dr. Ludlam ... 30
Gelseminum, Proving of, Case of Margaret Washington, Proceeding in ... 269
Genius, Erratic, Relations to Physical Disease, Dr. Hunt ... 322
Gouty Kidney, Dr. Marcy ... 196
Guilbert, Dr. E. A., Clinical Contributions ... 422
Guinea Worm ... 316
Gun-shot Wounds, Aphorisms on, Dr. Helmuth ... 100
Hæmostatic, New, 315. Balsam Copaiva ... 454
Hahnemann Medical College, Chicago ... 154, 614
Hale, Dr. E. M., On Euphorbia-Corrolata ... 49
" Remedial Analogues ... 208
" Work on Homœopathic Practice ... 320
" Importance of a Single Symptom ... 351
" Case of Softening of the Brain ... 481
" Removal to Chicago ... 617
Hard Palate, Anatomy of, Dr. Helmuth ... 101
Hæmorrhoidal Malady, Dr. Escallier ... 558
Heart, Hypertrophy of, Dr. Ludlam, 30
Heart Affection, Simulated by Hæmorrhoidal Disease ... 560
Hepatic Abscess, Dr. Helmuth ... 486
Hepatization of the Lungs, Dr. Ludlam ... 30
Helmuth, Dr. Wm. T., Anatomy of the Hard Palate ... 101
" Work on Diphtheria, Notice ... 127
" Organic Stricture of the Œsophagus ... 260
" Anatomical Prizes ... 319
" Surgery, Irreducible Femoral Hernia, Fibroid Tumor of the Uterus, Tracheotomy, Gun-Shot Wounds ... 400
" Hepatic Abscess, Paracentiasis ... 486
Hernia, Irreducible ... 400
Hoarseness, Dr. Gaspari ... 453
Holley, Dr. E., On Puerperal Metritis ... 436
Homœopathic Law, Scientific Basis of the ... 565
Homœopathy in Connection with the Progress of Man, Dr. Long, 432
Homœopathy, Theory of ... 563

PAGE.
Homœopathy the Science of Therapeutics, Review of Dr. Dunham, 597
Homœopathy in Michigan State Prison........................ 617
Homœopathy in Venereal Diseases, Dr. Yeldham................. 292
Homœopathy, Impediments to the Progress of.................. 141
Homœopathic Medical Society of the State of New-York, 471. Act to Incorporate the............ 142
Homœopathic Medical Society of Kings County, N. Y.......... 150
Homœopathic Medical Society of Oneida County................ 150
Homœopathic Med. College, New-Hampshire................... 152
Homœopathic Medical Society of Northern New-York.......... 616
Homœopathic Medical State Association of Illinois............. 295
Homœopathic Medical College of Pennsylvania................. 158
Hom. Med. College, Western, Cleveland, O. 155, 614
Hom. Med. College, Hahnemann, Chicago..................... 614
Homœopathic Theory and Practice. Dr. Lutze's................. 128
Homœopathic Observer.......... 156
Hospitals, Malgaigne on......... 121
" for the Insane......... 526
Humanity, Homœopathy, and the War, Dr. J. T. Temple........ 161
Hunt, Dr. F. W., On Phthisis Pulmonalis.................. 58, 170
Hunt, Dr F. W., Derangements of the Human Mind......... 321, 512
Hypertrophy of the Heart, Dr. Ludlam..................... 30
Idiosyncrasies, ... 517
Illinois State Homœopathic Association,................. 295, 616
Importance of a Single Symptom, Dr. Hale,.................... 351
Infinitesimal Doses and the Language of Light,.............. 114
Inflammatory Exudation of the Kidney, Dr. Marcy............ 1
Insane, Criminal, 123. Friends, Hospital for................. 125
Insanity, Dr. Hunt. 323, 512
Intemperance a Cause of Insanity. 519
Intermittents, Pathology of, Dr. Lord........................ 76
Intermediate or Intercurrent Remedies 579
Intestinal Worms.............. 125
Intestinal Obstruction.......... 524
Kallenbach, Dr., On Vaccination. 125

PAGE.
Kellogg, Dr., Address by........ 615
Kidney, Large White, by Dr. Marcy 196
Kings County Homœopathic Medical Society.................. 150
Kirchoff's and Bunson's discoveries 114
Language of Light and Infinitesimal Doses............... 114
Lazarus, Dr., On Malaria.... 370, 498
Ledum in Whooping Cough..317, 455
Leeches, Culture of............ 314
Legality of Drug Proving Recognized 269
Leprosy, (Editorial).......... 476, 522
Lepra Anæsthetica.............. 522
Leucorrhœa, Cured by Ruta Graveolens 454
Liver, Abscess of, Dr. Helmuth... 486
Lodge, Dr. E. A., Malicious Prosecution of, for Drug Proving.... 269
Lilienthal, Dr., Translation by.... 582
" " Theory of Homœopathy 563
Logwood as a Disinfectant....... 312
Long, Dr. J. M., on Homœopathy and the Progress of Man....... 432
Ludlam, Dr. R., Pathology a Practical Science...... 382
" Clinical Lectures on Hepatization of the Lungs, &c., 30
" Clinical Lectures on Diphtheria................ 607
" Physiological Dietetics.. 231
Lungs, Hepatization of, Dr. Ludlam 30
Lung Disease in Cattle.......... 13
Malaria, Dr. Lazarus............ 370
" Differential Pathogeny of, Dr. Lazarus.......... 498
Malgaigne on Great Hospitals.... 121
Malignant Intermittent.......... 584
" Double Tertian....... 588
Mamillarium, Dr. Richter........ 628
Medical and Surgical Reporter... 139
Medicine in Great Britain........ 445
Mental Alienation...... 321, 452, 512
Metritis, Puerpural, Dr. E. Holley 436
Michigan State Prison, Homœopathy in.................... 615
Michigan Homœopathic Institute. 460
Microscopic Examination of the Air 595
Mind, its Influence on the Body in Disease (Editorial)........... 589
Mind, its Influence on the Heart.. 593
" Diseases of............321, 512
Moral Treatment of the Insane. .. 529
Mullein, Properties of.......... 394
Nelaton, M., his Diagnosis of Garibaldi's Wound................ 595
Nephritis, Chronic Desquamative, Dr. Marcy.................... 1
Neuralgia, Chaldonium in........ 160

PAGE
Nux-moschata, Cure by 451
Obituary 320
Obstetrics, Principles and Practice of by Dr. Bedford 600
Obstruction of the Bowels 524
Œsophagus, Organic Stricture of Dilatation, Dr. Helmuth 260
Oinomania 519
Old and New Systems of Medicines Contrasted 138
Oneida County Homœopathic Society, 150
Opium, Antagonistic to Belladonna 120
Opto-Chemistry 114
Ozœna and Chronic Catarrh 618
Palate, Anatomy of, Dr. Helmuth 101
Passions, their Influence on Disease 590
Pathogenetic Characteristics of Drugs, Dr. Douglas 156, 626
Pathology a Practical Science, Dr. Ludlam 382
Petiveria 156
Perchloride of Iron 316
Phellandrium 156
Phosphoric Paralysis 113, 159
Phthisis Pulmonalis, Dr. Hunt 58, 170
" " Dr. Loin 455
Phosphorus, 156. Phosphoric Acid 157
Physical Disease in Relation to Insanity 321, 512
Pinel and Hahnemann 525
Plague, Contagion 506
Platina 158
Pleuropneumonia in Cattle 313
Plumbum, 158. Potencies, Theory of, 572
Power of Small Doses 567
Portable Styptic 313
Pulsatilla 158
Practical Medicine, Braithwaite's Retrospect 132
Practice, Cases by Dr. Douglas 107
" " Dr. Leon 110
" " Dr. Morgan 111
" of Obstetrics, Dr. Bedford 600
Progress of Homœopathy 141
Prosopalgia, Stannum 594
Psychical Diseases 452
Progress of Man, Dr. Long 432
Puerperal Metritis, Dr. Holley 436
" Fever, Contagion of 504
" Convulsions, Dr. Bedford 600
Ramolissenent of the Brain, Dr. Hale 481
Ranunculus 158, 159
Reasoning Faculty, Derangement of 321
Reform, Progress of, in the Ranks of Regular Medicine 472
Repetition of Doses 577
Resection of the Clavicle, Dr. Franklin, 256
Respiration and Circulation of the Blood, Dr. Woodbury 438
Rhatania 626
Rheum 626
Rhododendron 626
Rhus 626

PAGE.
Richter, Dr., Mamillarium 628
Ruta Graveolens 627
Sabadilla, 627 Sabina 627. Sambucus 628. Santonine 127
Science of Therapeutics, Dr. Dunham 597
Scientific Basis of the Homœopathic 565
Scirrhus, Dr. Horner 438
Secale 628
Softening of the Brain, Case of, Dr. Hale 481
Spectral Analysis 114
Spotted Fever 582
Stens, Dr., Letters on Therapeutics of the Day 460
Stricture of the Œsophagus, Dr. Helmuth 260
Surgery, Dr. Helmuth on 400
Symptom, Importance of a Single, Dr. Hale 351
Syphilis, Treatment by vaccination 532
Syphilization Applied to Children 548
Talbot, Dr., Common Sense of Homœopathy 458
Temple, Dr. John T., Humanity, Homœopathy, and the War 161
Temperature of the Body 618
Theory of Homœopathy 463
Therapeutics of the Day 460
Therapeutics, Science of, Dr. Dunham, 597
Tracheotomy, Dr. Helmuth 400
Trades Unions, Medical 612
Typhoid Malarious Fever 588
" Bilious Fever 589
Ulcers, Carbonic-Acid on 315
Urea, Toxical Properties of 604
Uræmic Poisoning in Puerperal Convulsions, Bedford 601
Uterus, Fibroid Tumor of, Dr. Helmuth, 400
" Exfoliation of Mucous Membrane, Dr. Holley 436
Vaccination, Dr. Kallenbach on 125
" in the Treatment of Syphilis 532
Venereal Diseases, Homœopathy in, Dr. Yeldham 292
Verbascum Thapsus 591
Vienna Hospital 314
Walker, Dr., Therapeutic Action of Atomic Doses 455
War, Homœopathy and the, Dr. Temple, 161
Wells, Dr. P. P., Diarrhœa and Dysentery 610
Western Homœopathic College 155
Whately, Archbishop, on Medical Trades Unions 612
White Kidney, Dr. Marcy 1
Williamson, Dr., on Diphtheria 168
Witherill, Dr., Ascitis 429
Woodbury, Dr. O. A., on the Circulation, 438
Worms, Intestinal 125
Yeldham, Dr., on Venereal Diseases 292
Yellow Fever, Contagion of 510

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